

## STN Columbus

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 APR 04 STN AnaVist, Version 1, to be discontinued  
NEWS 3 APR 15 WPIDS, WPINDEX, and WPIX enhanced with new  
predefined hit display formats  
NEWS 4 APR 28 EMBASE Controlled Term thesaurus enhanced  
NEWS 5 APR 28 IMSRESEARCH reloaded with enhancements  
NEWS 6 MAY 30 INPAFAMDB now available on STN for patent family  
searching  
NEWS 7 MAY 30 DGENE, PCTGEN, and USGENE enhanced with new homology  
sequence search option  
NEWS 8 JUN 06 EPFULL enhanced with 260,000 English abstracts  
NEWS 9 JUN 06 KOREAPAT updated with 41,000 documents  
NEWS 10 JUN 13 USPATFULL and USPAT2 updated with 11-character  
patent numbers for U.S. applications  
NEWS 11 JUN 19 CAS REGISTRY includes selected substances from  
web-based collections  
NEWS 12 JUN 25 CA/CAPLUS and USPAT databases updated with IPC  
reclassification data  
NEWS 13 JUN 30 AEROSPACE enhanced with more than 1 million U.S.  
patent records  
NEWS 14 JUN 30 EMBASE, EMBAL, and LEMBASE updated with additional  
options to display authors and affiliated  
organizations  
NEWS 15 JUN 30 STN on the Web enhanced with new STN AnaVist  
Assistant and BLAST plug-in  
NEWS 16 JUN 30 STN AnaVist enhanced with database content from EPFULL  
NEWS 17 JUL 28 CA/CAPLUS patent coverage enhanced  
NEWS 18 JUL 28 EPFULL enhanced with additional legal status  
information from the EPOLINE Register  
NEWS 19 JUL 28 IFICDB, IFIPAT, and IFIUIDB reloaded with enhancements  
NEWS 20 JUL 28 STN Viewer performance improved  
NEWS 21 AUG 01 INPADOCDB and INPAFAMDB coverage enhanced  
NEWS 22 AUG 13 CA/CAPLUS enhanced with printed Chemical Abstracts  
page images from 1967-1998  
NEWS 23 AUG 15 CAOLD to be discontinued on December 31, 2008  
NEWS 24 AUG 15 CAPLUS currency for Korean patents enhanced  
NEWS 25 AUG 25 CA/CAPLUS, CASREACT, and IFI and USPAT databases  
enhanced for more flexible patent number searching  
NEWS 26 AUG 27 CAS definition of basic patents expanded to ensure  
comprehensive access to substance and sequence  
information  
  
NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 11:22:04 ON 16 SEP 2008

=> fil ca  
COST IN U.S. DOLLARS                      SINCE FILE              TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	2.31	2.31

FILE 'CA' ENTERED AT 11:28:45 ON 16 SEP 2008  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 11 Sep 2008 VOL 149 ISS 12  
FILE LAST UPDATED: 11 Sep 2008 (20080911/ED)

CA now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> e US-20060057482/pn
E1      1      US20060057480/PN
E2      1      US20060057481/PN
E3      1 -->  US20060057482/PN
E4      1      US20060057483/PN
E5      1      US20060057484/PN
E6      1      US20060057485/PN
E7      1      US20060057486/PN
E8      1      US20060057487/PN
E9      1      US20060057488/PN
E10     1      US20060057489/PN
E11     1      US20060057490/PN
E12     1      US20060057491/PN
```

```
=> s e3; sel rn
L1      1 US20060057482/PN
```

E1 THROUGH E7 ASSIGNED

=> fil reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.56	4.87

FILE 'REGISTRY' ENTERED AT 11:29:30 ON 16 SEP 2008  
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 SEP 2008 HIGHEST RN 1049628-87-6  
DICTIONARY FILE UPDATES: 15 SEP 2008 HIGHEST RN 1049628-87-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when

conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> s e1-e7

```
1 115-77-5/BI
  (115-77-5/RN)
1 542-42-7/BI
  (542-42-7/RN)
1 557-09-5/BI
  (557-09-5/RN)
1 637-12-7/BI
  (637-12-7/RN)
1 9004-73-3/BI
  (9004-73-3/RN)
1 9005-12-3/BI
  (9005-12-3/RN)
1 9016-00-6/BI
  (9016-00-6/RN)
L2      7 (115-77-5/BI OR 542-42-7/BI OR 557-09-5/BI OR 637-12-7/BI OR
          9004-73-3/BI OR 9005-12-3/BI OR 9016-00-6/BI)
```

=> d scan

```
L2      7 ANSWERS   REGISTRY   COPYRIGHT 2008 ACS on STN
IN      Hexadecanoic acid, calcium salt (2:1)
MF      C16 H32 O2 . 1/2 Ca
```

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>14</sub>-Me

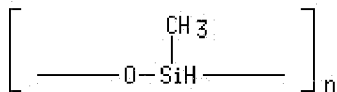
# 1/2 Ca

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

```
L2      7 ANSWERS   REGISTRY   COPYRIGHT 2008 ACS on STN
IN      Poly[oxy(methylsilylene)] (8CI, 9CI)
MF      (C H4 O Si)n
CI      PMS, COM
```

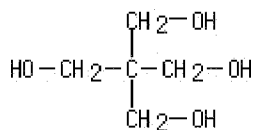
\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

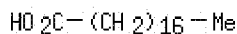
```
L2      7 ANSWERS   REGISTRY   COPYRIGHT 2008 ACS on STN
IN      1,3-Propanediol, 2,2-bis(hydroxymethyl)-
MF      C5 H12 O4
CI      COM
```



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L2 7 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Octadecanoic acid, aluminum salt (3:1)  
 MF C18 H36 O2 . 1/3 Al  
 CI COM



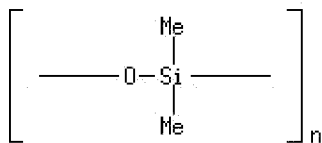
# 1/3 Al

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L2 7 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Poly[oxy(dimethylsilylene)]  
 ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT  
 MF (C2 H6 O Si)n  
 CI PMS, COM

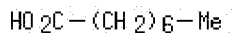
\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L2 7 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Octanoic acid, zinc salt (2:1)  
 MF C8 H16 O2 . 1/2 Zn  
 CI COM



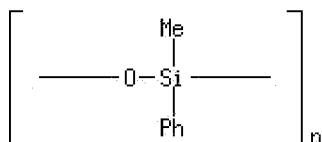
# 1/2 Zn

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L2 7 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN Poly[oxy(methylphenylsilylene)]  
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT  
MF (C7 H8 O Si)<sub>n</sub>  
CI PMS

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

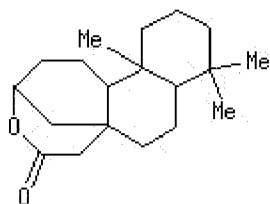
ALL ANSWERS HAVE BEEN SCANNED

=> s ?anoic (w) acid  
LEFT TRUNCATION IGNORED FOR FILE 'REGISTRY'  
16 ANOIC  
10488636 ACID  
L3 15 ?ANOIC (W) ACID  
Left truncation is not valid in the specified search field in the  
specified file. The term has been searched without left truncation.  
Examples: '?TERPEN?' would be searched as 'TERPEN?' and '?FLAVONOID'  
would be searched as 'FLAVONOID.'

If you are searching in a field that uses implied proximity, and you  
used a truncation symbol after a punctuation mark, the system may  
interpret the truncation symbol as being at the beginning of a term.  
Implied proximity is used in search fields indexed as single words,  
for example, the Basic Index.

=> d scan

L3 15 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN **Podocarpanoic acid, 8-(carboxymethyl)-13-hydroxy-,  $\delta$ -lactone**  
**(8CI)**  
MF C19 H28 O4  
CI IDS



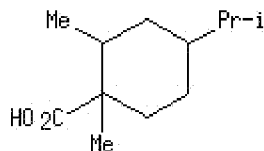
D1-OH

D2=O

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L3 15 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Cyclohexanecarboxylic acid, 4-isopropyl-1,2-dimethyl- (7CI, 8CI)  
 MF C12 H22 O2

Currently available stereo shown.

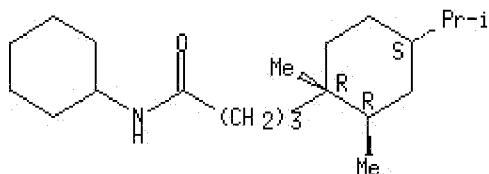


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L3 15 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Cyclohexanecarboxamide, N-cyclohexyl-1,2-dimethyl-4-(1-methylethyl)-,  
 (1 $\alpha$ , 2 $\beta$ , 4 $\alpha$ )-(+) - (9CI)  
 MF C21 H39 N O

Rotation (+). Absolute stereochemistry unknown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> s (octanoic or decanoic or octadecanoic or dodecanoic or nonanoic or undecanoic) (w) acid  
 23509 OCTANOIC  
 13977 DECANOIC  
 16659 OCTADECANOIC  
 0 DODECANOIC  
 14777 NONANOIC  
 11670 UNDECANOIC  
 10488636 ACID

L4 79080 (OCTANOIC OR DECANOIC OR OCTADECANOIC OR DODECANOIC OR NONANOIC  
 OR UNDECANOIC) (W) ACID

=> s 14 not pms/ci  
 1232042 PMS/CI  
 L5 71965 L4 NOT PMS/CI

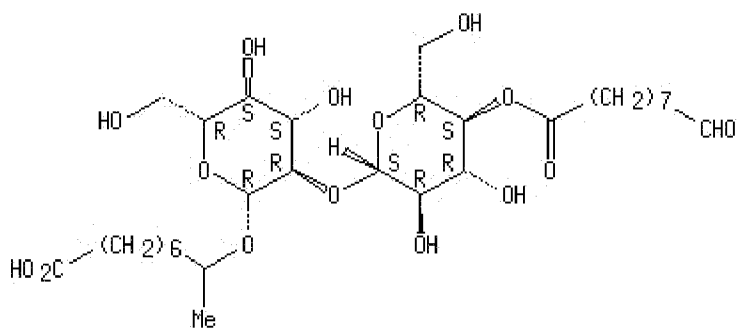
=> s 15 and nc=1  
 92995489 NC=1  
 L6 63026 L5 AND NC=1

=> d scan

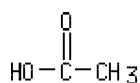
L6 63026 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN **Nonanoic acid, 8-[[2-O-[4-O-(1,9-dioxononyl)- $\beta$ -D-glucopyranosyl]-  
 $\beta$ -D-glucopyranosyl]oxy]-, 6' (or 6'')-acetate**  
 MF C32 H54 O16  
 CI IDS

CM 1

Absolute stereochemistry.



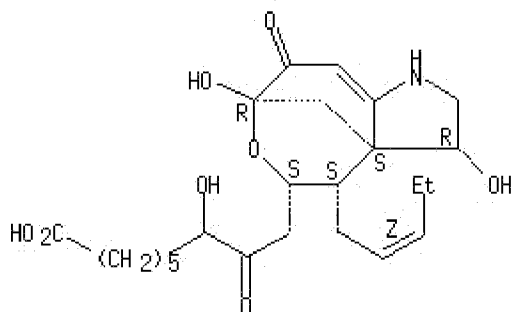
CM 2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L6 63026 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN 1H-3a,7-Methanooxocino[5,4-b]pyrrole-5-nonanoic acid,  
 2,3,4,5,7,8-hexahydro-ζ,3,7-trihydroxy-η,8-dioxo-4-(2Z)-2-penten-  
 1-yl-, (3R,3aS,4S,5S,7R)-  
 MF C24 H35 N O8

Absolute stereochemistry.  
 Double bond geometry as shown.

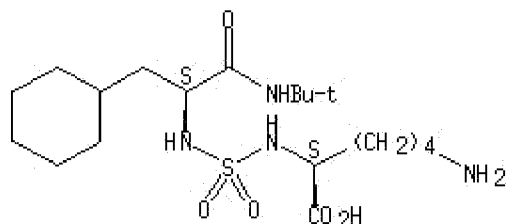


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L6 63026 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN 4-Thia-3,5,8-triazadecanoic acid, 2-(4-aminobutyl)-6-(  
 cyclohexylmethyl)-9,9-dimethyl-7-oxo-, 4,4-dioxide, (2S,6S)-  
 MF C19 H38 N4 O5 S  
 CI COM

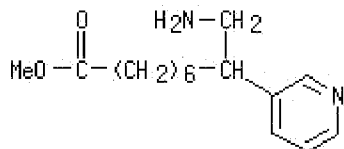
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):.

L6 63026 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 3-Pyridineoctanoic acid, η-(aminomethyl)-, methyl ester  
MF C15 H24 N2 O2



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> d his

(FILE 'HOME' ENTERED AT 11:22:04 ON 16 SEP 2008)

FILE 'CA' ENTERED AT 11:28:45 ON 16 SEP 2008

E US-20060057482/PN

L1 1 S E3  
SEL RN

FILE 'REGISTRY' ENTERED AT 11:29:30 ON 16 SEP 2008

L2 7 S E1-E7  
L3 15 S ?ANOIC (W) ACID  
L4 79080 S (OCTANOIC OR DECANOIC OR OCTADECANOIC OR DODECANOIC OR NONANO  
L5 71965 S L4 NOT PMS/CI  
L6 63026 S L5 AND NC=1

=> s l4 (4a) salt

765375 SALT

L7 2130 L4 (4A) SALT

=> s l7 and l56

L56 NOT FOUND

The L-number entered could not be found. To see the definition  
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l7 and l5

L8 1989 L7 AND L5

=> s o si/els and pms/ci

0 O SI/ELS

1232042 PMS/CI

L9 0 O SI/ELS AND PMS/CI

=> s silicone

L10 284 SILICONE

=> s siloxane

L11 33910 SILOXANE

=> fil ca; d his

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

86.08

90.95

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FILE COVERS 1907 - 11 Sep 2008 VOL 149 ISS 12  
FILE LAST UPDATED: 11 Sep 2008 (20080911/ED)

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L1 1 S E3  
SEL RN

FILE 'REGISTRY' ENTERED AT 11:29:30 ON 16 SEP 2008

L2 7 S E1-E7  
L3 15 S ?ANOIC (W) ACID  
L4 79080 S (OCTANOIC OR DECANOIC OR OCTADECANOIC OR DODECANOIC OR NONANO  
L5 71965 S L4 NOT PMS/CI  
L6 63026 S L5 AND NC=1  
L7 2130 S L4 (4A) SALT  
L8 1989 S L7 AND L5  
L9 0 S O SI/ELS AND PMS/CI  
L10 284 S SILICONE  
L11 33910 S SILOXANE

FILE 'CA' ENTERED AT 11:34:33 ON 16 SEP 2008

=> s 18 (p) (l10 or l11) (p) (silica or alumina or titania or oxide or dioxide)

45767 L8  
55908 L10  
65992 L11  
574431 SILICA  
323006 ALUMINA  
105992 TITANIA  
1875366 OXIDE  
525990 DIOXIDE  
L12 0 L8 (P) (L10 OR L11) (P) (SILICA OR ALUMINA OR TITANIA OR OXIDE  
OR DIOXIDE)

=> s 18 (p) (l10 or l11)

45767 L8  
55908 L10  
65992 L11  
L13 11 L8 (P) (L10 OR L11)

=> s 113 and toner#

38857 TONER#  
L14 0 L13 AND TONER#

=> s 18 and toner#

45767 L8

38857 TONER#  
L15 907 L8 AND TONER#

=> s l15 and (?silicone or ?siloxane)  
113350 ?SILICONE  
123853 ?SILOXANE

L16 102 L15 AND (?SILICONE OR ?SILOXANE)

=> s (silica or alumina or titania or oxide or dioxide)  
574431 SILICA  
323006 ALUMINA  
105992 TITANIA  
1875366 OXIDE  
525990 DIOXIDE

L17 2771489 (SILICA OR ALUMINA OR TITANIA OR OXIDE OR DIOXIDE)

=> s l16 and l17  
L18 58 L16 AND L17

=> d bib ab 1-10

L18 ANSWER 1 OF 58 CA COPYRIGHT 2008 ACS on STN  
Full Text  
AN 149:278788 CA  
TI Emulsion aggregation **toner** compositions and developers  
IN Veregin, Richard P. N.; Strohm, Eric M.; Rotberg, Eric; Hawkins, Michael  
S.; Zwartz, Edward G.; Sacripante, Guerino G.  
PA Xerox Corporation, USA  
SO Eur. Pat. Appl., 15pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1959305	A2	20080820	EP 2008-101451	20080208
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, MK, RS				
	US 20080197283	A1	20080821	US 2007-676059	20070216
	CA 2620739	A1	20080816	CA 2008-2620739	20080208
	CN 101246321	A	20080820	CN 2008-10005665	20080214
	KR 2008076838	A	20080820	KR 2008-13959	20080215
	JP 2008203852	A	20080904	JP 2008-33892	20080215
PRAI	US 2007-676059	A	20070216		

AB Disclosed herein are **toner** compns. and developers particularly suitable for use in xerog. devices having oil-less fuser systems. The disclosed emulsion aggregation **toner** compn., which is substantially free of cryst. resin, is composed of an amorphous polyester resin having an acid value of from about 13 mg/equiv. KOH to about 40 m/equiv. KOH and has a **toner** cohesion of from about 0% to 30% at about room temp.

L18 ANSWER 2 OF 58 CA COPYRIGHT 2008 ACS on STN  
Full Text  
AN 148:42282 CA  
TI **Toner** composition having coated strontium titanate additive  
IN Pickering, Thomas R.  
PA Xerox Corporation, USA  
SO U.S. Pat. Appl. Publ., 13pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20070281233	A1	20071206	US 2006-445360	20060531
	JP 2007323068	A	20071213	JP 2007-137663	20070524
PRAI	US 2006-445360	A	20060531		

AB Herein are described **toner** and developer compns., and more specifically, the **toner** and developer compns. contg. strontium titanate additives, and in embodiments, coated strontium titanate additives. The strontium titanate additive may be coated with, for example, polyalkylsiloxanes,

such as polydimethylsiloxanes. In embodiments, the additive is relatively large, and reduces the **toner** aging effect.

L18 ANSWER 3 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 147:449502 CA

TI Manufacture of hydrophilic polymer particles with narrow size distribution in liquid or supercritical carbon **dioxide**

IN Takikawa, Tadao

PA Sanyo Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 33pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007277511	A	20071025	JP 2006-219779	20060811
PRAI	JP 2006-72088	A	20060316		

AB Title manufg. method includes dispersing of polymer (precursors) (solvent solns.) in liq. or supercrit. CO<sub>2</sub> in the presence of dispersing agents contg. functional groups having **dimethylsiloxane** and/or F-contg. groups and fine particles and removal of the CO<sub>2</sub> by depressurizing to give polymer particles with the fine particles on the surfaces. Polymer particles manufd. by the method are useful for additives, **toners**, and powder coatings. Thus, polyester particles with Mg distearate manufd. from an AcH soln. contg. ethoxylated bisphenol A-propoxylated bisphenol A-adipic acid-terephthalic acid copolymer, a mixt. of a hexane dispersion contg. Mg distearate and  $\gamma$ -carboxypropyl-terminated **polydimethylsiloxane** and Me<sub>3</sub>SiO(SiOMe<sub>2</sub>)<sub>n</sub>SiMe<sub>2</sub>(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub> showed DVc 5.1  $\mu$ m and DNc 4.2  $\mu$ m, and DVc/DNc 1.21.

L18 ANSWER 4 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 147:311261 CA

TI **Toner** composition comprising **toner** particles and external additive including **silica**, titanium **oxide**, magnesium stearate and polymethylmethacrylate

IN Kim, Sang Deok

PA Samsung Electronics Co., Ltd., S. Korea

SO Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DT Patent

LA Korean

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2006122558	A	20061130	KR 2005-45128	20050527
PRAI	KR 2005-45128		20050527		

AB **Toner** compn. comprising **toner** particles and external additive is provided to give improved dispersion property between particles and excellent cleaning ability between photoconductor and elec. charger by fabricating the additive with **silica**, titanium **oxide**, magnesium stearate and polymethylmethacrylate. The **toner** compn. includes: **toner** particles contg. coloring agent, coupling agent, charge control agent and releasing agent; and external additive which comprises 0.2-8 wt.% of **silica**, 0.1-3.0 wt.% of titanium **oxide**, 0.1-1.0 wt.% of magnesium stearate and 0.1-1.0 wt.% of polymethylmethacrylate resin, based on total 100 wt.% of the **toner** particles. Titanium **oxide** is surface-treated by **alumina** and organo-**polysiloxane** and has BET surface area ranging from 20-100 m<sup>2</sup>/g. The releasing agent is wax with m.p. ranging from 70-120°.

L18 ANSWER 5 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 145:497611 CA

TI **Toner** compositions with surface additives

IN Pickering, Thomas R.

PA Xerox Corporation, USA

SO U.S. Pat. Appl. Publ., 12pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20060251978	A1	20061109	US 2005-119725	20050503
	US 7288352	B2	20071030		
	CN 1858658	A	20061108	CN 2006-10077843	20060508
PRAI	US 2005-119725	A	20050503		

AB A **toner** compn. including a binder, a colorant, and a surface additive package including a surface treated **silica**, a surface treated **titania**, and magnesium stearate. This disclosure relates to **toners**, developers contg. **toners**, processes thereof, and methods for generating developed images with high print quality.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 145:439633 CA

TI Pressure-sensitive adhesive sheets with good adhesion retention and no odor in printing

IN Fujiwara, Manabu; Fujiki, Yasutake; Konishi, Hario

PA Oji Paper Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 19pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006291185	A	20061026	JP 2006-65644	20060310
PRAI	JP 2005-75169	A	20050316		

AB The sheets, useful as confidential postcards, comprise (A) substrate sheets and (B) on at least one surface of A pseudo-adhesive layers including adhesive components and synthetic silicates, wherein 2 layers of the sheets are releasably bonded by laminating with pseudo-adhesive layers inside and compressing. Thus, an adhesive coating comprising 25% Me methacrylate-grafted natural rubber latex (35-018A) 35, SBR latex (SR 100) 10, starch (AS 225) 30, **silica** gel with BET sp. surface area 260 m<sup>2</sup>/g (Nipsil HD) 10, X-type synthetic zeolite with BET sp. surface area 760 m<sup>2</sup>/g (Mizuka Sieves) 15 parts was coated on both surfaces of paper (basis wt. 95 g/m<sup>2</sup>) at 7 g/m<sup>2</sup> (as solids) to give an adhesive sheet showing retention of adhesive strength 51% after passing through a **silicone** oil-coated roller, retention of adhesive strength 40% after contacting with a dryer at 150° for 1 min, and no blocking of **toners** after printing, folding, then laminating for 2 h.

L18 ANSWER 7 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 145:321586 CA

TI Omeprazole zinc enteric film-coated oral solid formulation and oral semisolid formulations

IN Shi, Xiuwei; Shao, Mei; Wu, Liangxin; Ai, Jie

PA Tianjin City Xuanhong Pharmaceutical Technology Co., Ltd., Peop. Rep.

China; Shenzhen City Zifu Pharmaceutical Co., Ltd.

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 24pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1813728	A	20060809	CN 2006-10057502	20060309
PRAI	CN 2006-10057502		20060309		

AB The formulation is selected from oral solid or semisolid formulation which is coated one or more layer(s) enteric film coating. The omeprazole zinc is one omeprazole zinc or single enantiomer of omeprazole zinc. The oral solid or semisolid formulation may be tablets, capsules, pills, dripping pills, granules, microgranules, micropills, microcapsules, microsphere, solid dispersant, and semisolid formulation. The medical formulation also contain therapeutically acceptable adjuvant which is selected from therapeutically acceptable diluent, wetting agent, adhesive,

disintegrating agent, flow aid, anti-plastering aid, lubricant, flavoring agent, **toner**, carrier material of solid dispersion, capsule material, antioxidant, surfactant, stabilizing agent, retarding agent, accelerating agent, plasticizing agent, crosslinking agent, and pH regulator. The diluent is selected from one or more of starch, sugar power, lactose, etc. The wetting agent is selected from one or more of ethanol, water, etc. The adhesive is selected from one or more of hydroxypropyl Me cellulose, Et cellulose, etc. The disintegrating agent is selected from one or more of sodium carboxymethyl starch, low-substituted hydroxypropyl cellulose, etc. The flow aid, anti-plastering aid and lubricant are selected from one or more of talc powder, differential **silica** gel, etc. The flavoring agent and **toner** are selected from one or more of medical pigment, edible pigment, etc. The carrier material of solid dispersion is selected from polyethylene glycol, celluloses, etc. The capsule material is selected from one or more of poloxamer, Brij, etc. The pH regulator is selected from basic compd., buffering system, etc. The enteric coating material is selected from one or more of acrylic resin, polyvinyl phthalate, etc. The prepn. process consists of mixing, cooling, cutting, coating, or filling, coating, and prep. corresponding formulations.

L18 ANSWER 8 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 145:259078 CA

TI **Toner** containing two types of waxes, process for producing **toner**, and two-component developing agent

IN Yuasa, Yasuhito; Arase, Hidekazu; Maeda, Masahisa

PA Matsushita Electric Industrial Co., Ltd., Japan

SO PCT Int. Appl., 128pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006087847	A1	20060824	WO 2005-JP20136	20051101
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRAI JP 2005-40164 A 20050217

AB This invention provides a **toner** or two-component developing agent produced by mixing resin particles, coloring agent particles and wax particles together and coagulating the mixt. in water and heating the coagulates. When the wt. av. mol. wt. and the no. av. mol. wt. of the resin particles are measured by gel permeation chromatog. (GPC), the wt. av. mol. wt. is 10,000 to 60,000 and the ratio between the wt. av. mol. wt. and the no. av. mol. wt. is 1.5 to 6. The wax comprises at least a first wax and a second wax. The endothermic peak temp. (m.p.: Tm1 (°C)) of the first wax as measured by DSC is 50 to 90°C, and the endothermic peak temp. (m.p.: Tm2 (°C)) of the second wax as measured by DSC is higher by 5 to 50°C or more than Tm1. According to this constitution, a **toner** or a two-component developing agent can be provided in which a small-diam. **toner** having a sharp particle size distribution can be prepd. without the need to provide a classification step, the service life can be prolonged, and the occurrence of an inside void of characters upon transfer and scattering can be prevented.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 9 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 145:156040 CA

TI **Titanium** with high flowability, its manufacture, and electrophotographic

**toner** using it as external additive  
 IN Asada, Yukinobu  
 PA Teyca Corporation, Japan  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006195025	A	20060727	JP 2005-4705	20050112
PRAI	JP 2005-4705		20050112		

AB The **titania** is manufd. by the steps of (1) hydrophobicizing the **titania** (primary particle size 5-100 nm) with org. compd. in non-aq. medium, (2) pulverizing the treated **titania**, and (3) dry-mixing the **titania** with vapor phase-synthesized **silica** (av. particle size 5-40 nm) at **silica/titania** = 0.5-20 wt.%. The obtained **titania** with high flowability, and electrophotog. **toner** contg. the **titania** as external additive are claimed. The **toner** shows good flowability, environmental stability, and gives clear and sharp images.

L18 ANSWER 10 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 144:442601 CA  
 TI **Toner** compositions with surface additives  
 IN Silence, Scott M.; Chung, Joo T.; Morales-Tirado, Juan A.  
 PA Xerox Corporation, USA  
 SO U.S. Pat. Appl. Publ., 11 pp.  
 CODEN: USXXCO

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20060093941	A1	20060504	US 2004-980234	20041104
	US 7354688	B2	20080408		
	JP 2006133771	A	20060525	JP 2005-314700	20051028
	MX 2005PA11793	A	20060725	MX 2005-PA11793	20051101
	CN 1770023	A	20060510	CN 2005-10120045	20051103
	EP 1655639	A2	20060510	EP 2005-110302	20051103
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
	BR 2005004784	A	20060718	BR 2005-4784	20051103
PRAI	US 2004-980234	A	20041104		

AB A **toner** compn. includes a binder, a colorant, and a surface additive package including a **polydimethylsiloxane** surface treated **silica**, a surface treated **titania**, and calcium stearate. The **toner** compn. provides improved triboelec. charging properties.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib ab 11-20

L18 ANSWER 11 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 144:360244 CA  
 TI Electrophotographic image formation apparatus having photoconductors with balanced durability and cleanability  
 IN Akagi, Hideyuki; Shigezaki, Satoshi; Kuroda, Yoshitaka; Matsumura, Yasuo; Sakanobe, Makoto; Yoshino, Shin; Yamada, Wataru  
 PA Fuji Xerox Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 44 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006085042	A	20060330	JP 2004-272198	20040917
PRAI	JP 2004-272198		20040917		

AB The app. contains (A) a photoreceptor having a surface protective layer of crosslinked resins, (B) a cleaning blade, and (C) a container for **toners** with D16v, D50v (diams., above which account for 16% and 50%, resp., of the entire **toner** particles in vol. diam. distribution), D50p, and D84p (diams., above which account for 50% and 84%, resp., of the entire **toner** particles in no. diam. distribution) satisfying the relationships of  $D16v/D50v \leq 1.475 - 0.036 \times D50v$ ,  $1.25 \leq D50p/D84p \leq 1.45$ , and  $D50v = 3.0-9.0 \mu m$ , wherein SF (av. shape coeff.;  $SF = 100 \times \pi ML^2/4A$ ,  $ML$  = abs. max. length of **toner** particle,  $A$  = projected area of **toner** particle) of the **toners** is in the range of 115 and 140.

L18 ANSWER 12 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 144:263565 CA

TI **Toner** containing wax with specific DSC characteristics, manufacture thereof, two-component developer, and image-forming apparatus

IN Yuasa, Yasuhito; Arase, Hidekazu

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 67 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006058857	A	20060302	JP 2005-183158	20050623
PRAI	JP 2004-212733	A	20040721		

AB Disclosed is a **toner** comprising a 1st wax dispersion in a 1st resin coagulated particle and a 2nd wax contained in a 2nd resin particle and fused on the surface of the 1st resin coagulated particle, wherein a DSC endothermic peak of the 1st wax is lower than that of the 2nd wax by 5-50°.

L18 ANSWER 13 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 144:117778 CA

TI Production of electrophotographic **toners** with sharp particle size distribution, two-component developers, and electrophotographic apparatus

IN Yuasa, Yasuhito; Arase, Hidekazu

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 59 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006011385	A	20060112	JP 2005-137639	20050510
PRAI	JP 2004-156683	A	20040526		

AB Prodn. of the **toners** includes steps of (1) mixing polymer particle dispersion solns., colorant particle dispersion solns., and wax particle dispersion solns. in aq. media, (2) adjusting the pH of the resultant mixed dispersion solns. to 9.5-12.2, adding water-sol. inorg. salts to the solns. and heating so as to form (partially) fused coagulated particles (in pH of 7.0-9.5), and (3) adjusting the pH to 2.2-6.8 again, and heating to give the **toner** particles. The produced **toner** particles may be used as **toner** cores on which sheath polymers are further formed by a process including steps of (1) adding second polymer particle dispersion solns. to the **toner**-core particle dispersion solns., (2) adjusting the pH to 5.2-8.8, and heating to a temp. equal or above the glass-transition point of the second polymer particles, (3) adjusting the pH to 2.2-6.8, and heating in the same manner as that in 2 so as to fuse the second polymer particles to the **toner**-core particles. Also claimed are electrophotog. tow-component developers contg. the **toner** particles, inorg. fine powders, and carriers contg. magnetic particles. The magnetic particles are composed of 80-99 wt.% of magnetic fine powders, and binder polymers, and have 10-60  $\mu m$  no.-av. particle size, and are coated with fluorine-modified silicones contg. amino-bearing silane coupling agents. Also claimed are electrophotog. app. employing the claimed **toners** or the two-component developers. The **toners** having small diam. can be produced without classification and can be oilless-fixed with good fixability.

L18 ANSWER 14 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 143:68300 CA

TI Two-component electrophotographic developers, their **toners**, and printers therefor

IN Yuasa, Yasuhito

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 60 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2005164800	A	20050623	JP 2003-401264	20031201
PRAI	JP 2003-401264		20031201		

AB Claimed are **toners** contg. cryst. resins (A), waxes, colorants, external additives, and binder resins (B) consisting of the 1st and the 2nd resin components (B1, B2), where these resins, i.e., A, B1, and B2 reach melt viscosity  $1 \times 10^3$  Pa-s sep. at temp. of 95-150°, 90-125°, and 155-210°. The **toners** as whole may show the melt viscosity at 120-170°. The 2nd binder resin components may show polyesters prepd. from ethoxylated or propoxylated bisphenol A,  $\geq 50$  mol% (to carboxylic acids) arom. dicarboxylic acids, and  $\geq 3$ -valent polycarboxylic acids. Also claimed are printers producing **toner** images with developers contg. the **toners** and carriers coated with aminosilane coupling agents or fluorosilicones and applying DC bias and 1.0-2.5-kV(p-p) AC bias of frequency 1-10 kHz between photoreceptors and developing rollers and rpm ratio of the rollers to the photoreceptor 1.2-2. Further specification about the printers regarding photoreceptor rpm is given. The developers show successful oil-less fusion while suppressing offset phenomena or **toner** spent on carriers.

L18 ANSWER 15 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 142:123049 CA

TI **Toners**, two-component development developers, and electrophotography apparatus assembled with the same

IN Yuasa, Yasuhito

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 58 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2005010457	A	20050113	JP 2003-174346	20030619
PRAI	JP 2003-174346		20030619		

AB The **toners** (A) contain (A1) 100 parts **toner** base bodies contg. 100 parts polyesters prepd. by polycondensation of polyhydric alcs. with polyvalent carboxylic acids, 10:1-5:1 blends of cryst. polyesters with endotherm-initiating temp.  $\geq 60^\circ$  and endotherm peak temp. 100-140° in DSC and acrylic sulfonic acid-based copolymers contg. sulfonic acid-based polar substituents and having  $M_w$   $3 \times 10^3$ - $8 \times 10^4$ , Z-av. mol. wt. ( $M_z$ )  $5 \times 10^3$ - $5 \times 10^5$ ,  $M_w/M_n$  1.5-50, and  $M_z/M_n$  5-100, and softening point 90-140°, and 1-20 parts waxes which may be ester-based waxes with I value  $\leq 25$  and sapon. degree 30-300 or hydrocarbon-based waxes prepd. by reaction of C5-100 long-chain alkyl alcs. with unsatd. polyvalent carboxylic acids or their anhydrides and unsatd. hydrocarbon waxes and (A2) 0.6-2.5 parts of an inorg. fine powder with mean particle size 6-20 nm, ignition loss 3-15%, and dry loss 0.01-1.5 and 1.0-3.5 parts of an inorg. fine powder with mean particle size 20-150 nm, ignition loss 3-15%, and dry loss 0.01-1.5%. The 2-component developers comprise 100 parts A and (B) 1.0-3.5 parts carriers contg. at least surface coatings of F-modified silicones contg. aminosilane coupling agents. Preferably, the polyesters contain ethoxylated or propoxylated bisphenol A,  $\text{HO}_2\text{C}(\text{CH}_2)_n\text{CO}_2\text{H}$  ( $n = 2$ -12 integer), and trivalent carboxylic acids. Preferably, the inorg. powder involves  $\text{SiO}_2$  or  $\text{TiO}_2$  fine powder surface-treated with polysiloxanes, fatty acid esters, fatty acid amides, and/or fatty acid metal salts.



Preferably, the polysiloxanes comprise di-Me **polysiloxane**, di-Ph **polysiloxane**, Me Ph **polysiloxane**, Ph H **polysiloxane**, Me H **polysiloxane**, or Ph H-Me H **polysiloxane**. Oil-less fixing preventing offset while maintaining high OHP transmittance, improved transfer property, and free from **toner** spent on carriers have been achieved.

L18 ANSWER 16 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 142:123048 CA

TI **Toners**, two-component developers, and electrophotography apparatus assembled with the same

IN Yuasa, Yasuhito

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 54 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005010456	A	20050113	JP 2003-174345	20030619
PRAI	JP 2003-174345		20030619		

AB The 2-component developers comprise (A) **toners** contg. (A1) 100 parts **toner** base bodies contg. 100 parts polyester binders prepd. by polycondensation of polyhydric alcs. with polyvalent carboxylic acids, 5-25 parts cryst. polyesters with endotherm-initiating temp.  $\geq 60^\circ$  and endotherm peak temp.  $100-140^\circ$  in DSC, and 1-20 parts waxes which may be ester-based waxes with I value  $\leq 25$  and sapon. degree 30-300 or hydrocarbon-based waxes prepd. by reaction of C5-100 long-chain alkyl alcs. with unsatd. polyvalent carboxylic acids or their anhydrides and unsatd. hydrocarbon waxes and (A2) 0.6-2.5 parts of an inorg. fine powder with mean particle size 6-20 nm, ignition loss 3-15%, and dry loss 0.01-1.5 and 1.0-3.5 parts of an inorg. fine powder with mean particle size 20-150 nm, ignition loss 3-15%, and dry loss 0.01-1.5% and (B) carriers contg. at least surface coatings of F-modified silicones contg. aminosilane coupling agents. Preferably, the inorg. powder involves SiO<sub>2</sub> or TiO<sub>2</sub> fine powder surface-treated with polysiloxanes, fatty acid esters, fatty acid amides, and/or fatty acid metal salts. Preferably, the polysiloxanes comprise di-Me **polysiloxane**, di-Ph **polysiloxane**, Me Ph **polysiloxane**, Ph H **polysiloxane**, Me H **polysiloxane**, or Ph H-Me H **polysiloxane**. Oil-less fixing preventing offset while maintaining high OHP transmittance, improved transfer property, and free from **toner** spent on carriers have been achieved.

L18 ANSWER 17 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 142:123047 CA

TI **Toners**, two-component develops, and electrophotography apparatus assembled with same

IN Yuasa, Yasuhito

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 56 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005010455	A	20050113	JP 2003-174344	20030619
	JP 4134822	B2	20080820		
PRAI	JP 2003-174344		20030619		

AB The 2-component developers comprise (A) 100 parts **toners** contg. (A1) **toner** base bodies contg. 100 parts blends of polyesters prepd. by polycondensation of polyhydric alcs. with polyvalent carboxylic acids, composed of polyesters (PLA) contg. THF-sols. characterized by GPC as wt.-av. mol. wt. (Mw)  $5.0 \times 10^3-2.0 \times 10^4$ , Z-av. mol. wt. (Mz)  $8 \times 10^3-6 \times 10^4$ , Mw/Mn [ratio of Mw and no.-av. mol. wt. (Mn)] 1.5-5, and Mz/Mn (ratio of Mz and Mn) 3-15, and softening temp. (Tm)  $90-115^\circ$  and polyesters (PLB) contg. THF-sols. characterized by GPC as Mw  $2.0 \times 10^4-3.0 \times 10^5$ , Mz  $1.0 \times 10^5-5.0 \times 10^6$ , Mw/Mn 5-60, Mz/Mn 10-900, and Tm  $120-170^\circ$ , 5-25 parts cryst. polyesters with endotherm-initiating temp.  $\geq 60^\circ$  and

endotherm peak temp. 100-140° in DSC, and 1-20 parts waxes which may be ester-based waxes with I value ≤25, sapon. degree 30-300, and endothermic peak temp. 50-110° or hydrocarbon-based waxes with endothermic peak temp. 50-110°, prepd. by reaction of C5-100 long-chain alkyl alcs. with unsatd. polyvalent carboxylic acids or their anhydrides and unsatd. hydrocarbon waxes and (A2) 0.6-2.5 parts inorg. fine powder with mean particle size 6-20 nm, ignition loss 3-15%, and dry loss 0.01-1.5 and 1.0-3.5 parts inorg. fine powder with mean particle size 20-150 nm, ignition loss 3-15%, and dry loss 0.01-1.5% and (B) carriers having at least surface coatings of F-modified silicones contg. aminosilane coupling agents. Preferably, the inorg. powder involves SiO<sub>2</sub> or TiO<sub>2</sub> fine powder surface-treated with polysiloxanes, fatty acid esters, fatty acid amides, and/or fatty acid metal salts. Preferably, the polysiloxanes comprise di-Me **polysiloxane**, di-Ph **polysiloxane**, Me Ph **polysiloxane**, Ph H **polysiloxane**, Me H **polysiloxane**, or Ph H-Me H **polysiloxane**. Oil-less fixing preventing offset while maintaining high OHP transmittance, improved transfer property, and free from **toner** spent on carriers have been achieved.

L18 ANSWER 18 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 142:123046 CA

TI **Toners**, two-component developers, and electrophotography apparatus using the same

IN Yuasa, Yasuhito

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 59 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005010454	A	20050113	JP 2003-174343	20030619
PRAI	JP 2003-174343		20030619		

AB The 2-component developers comprise (A) 100 parts **toners** contg. (A1) **toner** base bodies contg. 100 parts polyesters prepd. by polycondensation of polyhydric alcs. with polyvalent carboxylic acids, 5-25 parts cryst. polyesters with endotherm-initiating temp. ≥60° and endotherm peak temp. 100-140° in DSC, and 1-20 parts waxes which may be ester-based waxes with I value ≤25 and sapon. degree 30-300 or hydrocarbon-based waxes prepd. by reaction of C5-100 long-chain alkyl alcs. with unsatd. polyvalent carboxylic acids or their anhydrides and unsatd. hydrocarbon waxes and (A2) 0.6-2.5 parts inorg. fine powder with mean particle size 6-20 nm, ignition loss 3-15%, and dry loss 0.01-1.5 and 1.0-3.5 parts inorg. fine powder with mean particle size 20-150 nm, ignition loss 3-15%, and dry loss 0.01-1.5% and (B) carriers contg. at least surface coatings of F-modified silicones contg. aminosilane coupling agents. Preferably, the polyesters contain ethoxylated or propoxylated bisphenol A, HO<sub>2</sub>C(CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>H (n = 2-12 integer), and trivalent carboxylic acids. Preferably, the inorg. powder involves SiO<sub>2</sub> or TiO<sub>2</sub> fine powder surface-treated with polysiloxanes, fatty acid esters, fatty acid amides, and/or fatty acid metal salts. Preferably, the polysiloxanes comprise di-Me **polysiloxane**, di-Ph **polysiloxane**, Me Ph **polysiloxane**, Ph H **polysiloxane**, Me H **polysiloxane**, or Ph H-Me H **polysiloxane**. Oil-less fixing preventing offset while maintaining high OHP transmittance, improved transfer property, and free from **toner** spent on carriers have been achieved.

L18 ANSWER 19 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 141:268503 CA

TI Electrophotographic apparatus and method with improved **toner** transfer properties

IN Kudo, Koichi; Asano, Masao

PA Konica Minolta Holdings, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2004258177 A 20040916 JP 2003-47255 20030225  
 PRAI JP 2003-47255 20030225

AB The app. have means for transferring **toner** images on photoreceptors to recording materials and means for applying surface energy-lowering agents (fatty acid metal salts, preferably) contg. antioxidants (hindered phenols or amines, preferably) on the photoreceptors (surface roughness, Rz, 0.05-4.0  $\mu$ m, preferably), thus giving images with reduced defects.

L18 ANSWER 20 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 141:96614 CA  
 TI Two-component developer and method of forming image therewith  
 IN Yuasa, Yasuhito; Umeda, Kiminori  
 PA Matsushita Electric Industrial Co., Ltd., Japan  
 SO PCT Int. Appl., 105 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004055600	A1	20040701	WO 2003-JP13519	20031023
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003277519	A1	20040709	AU 2003-277519	20031023
	CN 1711507	A	20051221	CN 2003-80102687	20031023
	CN 100368931	C	20080213		
	US 20060014094	A1	20060119	US 2005-533231	20050429
PRAI	JP 2002-316615	A	20021030		
	WO 2003-JP13519	W	20031023		

AB A two-component developer comprising a **toner**, the **toner** comprising a carrier coated with a resin compn., the resin compn. comprising an aminosilane coupling agent and a fluorinated **silicone** resin, and a wax selected from among those of the following A to D. This two-component developer realizes high OHP light transmission, offset prevention and prolonged service life. (A) synthetic wax of 80 to 120° endothermic peak temp. in DSC anal. and 5 to 80 mgKOH/g acid value obtained by reacting of a C4-C30 long chain alkyl alc., an unsatd. polyhydric carboxylic acid or anhydride thereof and an unsatd. hydrocarbon wax. (B) ester wax of 50 to 120° endothermic peak temp. in DSC anal., 25 or less iodine value and 30 to 300 sapon. value. (C) fatty acid amide wax selected from among C16-C24 aliph. amide waxes and alkylene bis-fatty acid amides from satd. or 1 to 2-hydric unsatd. fatty acids. (D) fatty acid ester wax selected from among hydroxystearic acid derivs., glycerol fatty acid esters, glycol fatty acid esters and sorbitan fatty acid esters.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib ab 21-30

L18 ANSWER 21 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 141:79258 CA  
 TI Electrophotographic apparatus having organic photoreceptors, and its image formation  
 IN Yoshizawa, Hideo; Yamazaki, Hiroshi; Itami, Akihiko  
 PA Konica Minolta Holdings Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 49 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004177558	A	20040624	JP 2002-342186	20021126
PRAI	JP 2002-342186		20021126		
AB	The app. is equipped with an org. photoreceptor comprising a photosensitive layer (A) and a <b>silica-</b> or <b>siloxane</b> polymer-contg. surficial layer (B) satisfying that the sum of thickness of A and B is 5-15 $\mu\text{m}$ , and a lubricant is supplied onto the photoreceptor surface in electrophotog. The electrophotog. employs <b>toners</b> with prescribed shapes or a prescribed grain size distribution (both definition given). The photoreceptors are wear resistant so as to durably provide defects-free high-quality images.				

L18 ANSWER 22 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 140:172175 CA  
 TI Electrophotographic method and apparatus involving intermediate **toner** image transfer step  
 IN Itami, Akihiko; Asano, Masao  
 PA Konica Minolta Holdings Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 25 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004054001	A	20040219	JP 2002-212280	20020722
PRAI	JP 2002-212280		20020722		
AB	The method and app. involve steps for developing a latent image, transferring a <b>toner</b> image to an intermediate receiving material, transferring it to a final receiving material, and cleaning residual <b>toners</b> on the photoreceptor, in which intermediate material has surface roughness (Rz) 0.4-2.0 $\mu\text{m}$ , the photoreceptor has surface roughness (Ra) 0.02-0.1 $\mu\text{m}$ and surface energy lowering agent is supplied on the photoreceptor surface. They prevent image defects, showing improved <b>toner</b> cleaning ability.				

L18 ANSWER 23 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 140:172174 CA  
 TI Electrophotographic apparatus using lubricant for scratch prevention  
 IN Nishida, Satoshi; Miho, Hiroaki; Kurosu, Shigetaka; Morimoto, Hiroshi; Saito, Masashi  
 PA Konica Minolta Holdings Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004053892	A	20040219	JP 2002-210926	20020719
PRAI	JP 2002-210926		20020719		
AB	The app. comprises (A) a latent image carrier, (B) a developing device for forming <b>toner</b> image, (C) an optional transfer device for transferring the <b>toner</b> image onto an intermediate transfer material, (D) a transfer device for transferring the formed <b>toner</b> image on the image carrier or the intermediate transfer material onto an image receptor, and (E) a brush roller for coating a lubricant on the image carrier or the intermediate transfer material. The lubricant contains a fatty acid metal salt and inorg. particle abrasive. The transfer device D may have a transfer roller with an semiconductive coating layer made of a elastomer. Image is formed by using the app. and two component developer contg. <b>toner</b> and carrier. Scratch on the image carrier and the intermediate transfer material is prevented and clear images are obtained.				

L18 ANSWER 24 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 139:371840 CA  
 TI Method and apparatus for electrophotographic image formation by

intermediate image transfer process  
IN Itami, Akihiko  
PA Konica Minolta Holdings Inc., Japan  
SO Jpn. Kokai Tokkyo Koho, 19 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2003316203	A	20031107	JP 2002-123824	20020425
PRAI	JP 2002-123824		20020425		

AB The title method uses a photoreceptor, which has inorg. particles of 1-100 nm no. av. primary diam. on the surface and 0-10 J/g endothermic energy difference in 40-200° C at 80 %RH of 20° C by differential scanning calorimetric anal., and a surface energy-lowering agent for the photoreceptor. The method provides improved **toner** transfer property.

L18 ANSWER 25 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 139:171263 CA  
TI **Toner** containing inorganic powder external additive and image-forming apparatus  
IN Yuasa, Yasuhito; Toyota, Akinori  
PA Matsushita Electric Industrial Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 38 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2003241420	A	20030827	JP 2002-36492	20020214
	JP 3925228	B2	20070606		
PRAI	JP 2002-36492		20020214		

AB The **toner** made from a base material consisting of a binder resin and a colorant is processed by an inorg. powder external additive which loses its wt. 0.5-10% upon heating. The **toner** also contains a wax which is characterized by the an acid value 5-80 mgKOH/g, the m.p. 80-120°, and a needle penetration ≤4 at 25°, or by the I value ≤25 and the sapon. value 30-300. The image-forming app. using a tandem-type image-transfer process and above **toner** is also claimed.

L18 ANSWER 26 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 138:409330 CA  
TI Electrophotographic developer containing metal complex **oxide**  
IN Kontani, Yoshiharu; Watanabe, Koichiro; Ueno, Susumu  
PA Shin-Etsu Chemical Industry Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2003156872	A	20030530	JP 2001-353135	20011119
	JP 3882893	B2	20070221		
	US 20030138716	A1	20030724	US 2002-298792	20021119
	US 6797447	B2	20040928		
PRAI	JP 2001-353135	A	20011119		

AB The developer contains amorphous and spherical fine particles of 3-component metal complex **oxide**, which have av. particle size 10-500 nm and contain **silica** (A) 1-99, M1 **oxide** (B) 1-90, and M2 **oxide** (C) 1-90 wt.% (based on the total **oxide** except carbon; A + B + C = 100 wt.%). The particles, essentially contg. no Cl, are manufd. by spray-burning 2 kinds of metal oxides (M1 **oxide** and M2 **oxide**; M1-2 are metals except Si) and **siloxane** in flame. The developer shows good flowability, cleaning property, and charging property.

L18 ANSWER 27 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 138:294854 CA  
 TI Electrophotographic apparatus with organic electrophotographic  
 photoconductor showing durability as well as smear-resistance  
 IN Noshio, Shinji; Kimura, Michio; Nakamori, Hideo; Sugino, Akihiro  
 PA Ricoh Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003098711	A	20030404	JP 2001-289043	20010921
PRAI	JP 2001-289043		20010921		

AB The title electrophotog. app. comprises an org. electrophotog.  
 photoconductor, a means to supply lubricants onto the photoconductor  
 surface, a **toner**-cleaning elastic rubber blade, and **toner** particles  
 with metal **oxide** additives, wherein the photoconductor contains  
**silicone** oil, Al<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, SiO<sub>2</sub>, and/or metal fluoride as lubricants in  
 the uppermost layer, and the photoconductor shows the max. static friction  
 coeff. of ≤0.4 and the abrasion loss of 0.1-1.0 μm after 100,000  
 revolution.

L18 ANSWER 28 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 138:262678 CA  
 TI Electrophotographic apparatus, method, **toner**, and photoreceptor  
 IN Kondo, Fumio; Sugiura, Hideki  
 PA Ricoh Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003098697	A	20030404	JP 2001-286707	20010920
PRAI	JP 2001-286707		20010920		

AB In the app. and the method driving the photoreceptor by just contacting it  
 with a transfer material, the photoreceptor has a surface layer contg. at  
 least a polycarbonate with 10,000-70,000 viscosity-av. mol. wt. and with  
 water contact angle ≥80°. The **toner** used for the app. and  
 the method, is also claimed. The app. and the method show improved dot  
 reprodn. quality even on rapid copying.

L18 ANSWER 29 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 138:245534 CA  
 TI **Toner** for oilless fixing process from surface-treated inorganic  
 micropowder and electrophotographic apparatus  
 IN Yuasa, Yasuhito  
 PA Matsushita Electric Industrial Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 36 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003084486	A	20030319	JP 2001-279926	20010914
PRAI	JP 2001-279926		20010914		

AB The title **toner** comprises a **toner** mother material made up of a binder  
 resin having an acid value 1-70 mgKOH/g, an iodine value ≤25, a wax  
 having a sapon. value 30-300, and an inorg. micropowder precessed by an  
 aliph. acid and/or an aliph. acid metal salt. The **toner** is used with an  
 inorg. micropowder. The electrophotog. app. using a transfer belt having  
 a surface resistivity 10<sup>7</sup>-10<sup>12</sup> Ω/sq. and a vol. resistivity 10<sup>7</sup>-10<sup>12</sup>  
 Ω/sq. is also claimed.

L18 ANSWER 30 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 138:195844 CA

TI Electrophotographic **toner**, component developer, and image forming method and apparatus  
 IN Fushimi, Hiroyuki; Minamitani, Toshiki; Uchinokura, Satoru; Yagi, Shinichiro; Kato, Mitsuteru  
 PA Ricoh Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 25 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003057880	A	20030228	JP 2001-247014	20010816
PRAI	JP 2001-247014		20010816		

AB The **toner** comprises a main component of a binder resin and a colorant, contg. a charge control agent, a lubricant, and an additive. The binder resin comprises  $\geq 1$  polyester characterized by having (1) no THF-insol. component, (2) content  $\leq 4$  wt.% of a component with wt. av. mol. wt.  $\leq 5 \times 10^2$ , and (3) a main peak position in  $3 \times 10^3$  to  $9 \times 10^3$  wt. av. mol. wt. range. The charge control agent comprises a resin with 9.5-11.5 Log $\Omega$ ·cm vol. resistance, contg. at least a monomer contg. a sulfonic acid-base, an arom. monomer with an electron attractive group, an acrylate monomer and/or a methacrylate monomer, and an arom. vinyl monomer. The additive contains (a) a first hydrophobic **silica** with 0.01-0.03  $\mu\text{m}$  primary particle diam., (b) hydrophobic TiO<sub>2</sub> with 0.01-0.03  $\mu\text{m}$  primary particle diam. and 60-140 m<sup>2</sup>/g sp. surface, and (c) a second hydrophobic **silica** with 30-150 m<sup>2</sup>/g sp. surface, 130-300 mL/100-g DBP oil absorption, and 30-70% methanol wetting value. The developer comprises the obtained **toner** and a carrier. The method comprises processes for forming a latent image, developing it, transferring a **toner** image, and heat-fixing it. The app. involves a container for mono- or two component developer and developing, transferring, and fixing devices. The **toner** prevents filming, showing quick charging, and improved charge stability for a long period.

=> d kwic 31-40

L18 ANSWER 31 OF 58 CA COPYRIGHT 2008 ACS on STN

AB The developer contains at least (a) **toner** particles contg. a binder resin and a colorant, (b) inorg. particles with 4-80 nm primary particle no. av. diam., and (c) elec. conductive particles of which surface is treated with a lubricant. The **toner** particles comprises (1) 15-60 no.% particles with diam. range  $\geq 1.00 \mu\text{m}$  and  $< 2.00 \mu\text{m}$  and (2) 15-70 no.% particles with. . .

ST particle size controlled electrophotog developer **toner**; surface treated inorg particle electrophotog developer; conductive particle electrophotog **toner**

IT Electrophotographic apparatus  
 (electrophotog. image forming app. using particle size-controlled **toner**)

IT Polysiloxanes, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (fluorine-contg., conductive particle treated with; particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT Electrophotographic developers  
 (particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT Fluoropolymers, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (polysiloxane-, conductive particle treated with; particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT Coupling agents  
 (silane, conductive particle treated with; particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT Polysiloxanes, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (silica treated with; particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT 1314-13-2, Zinc **oxide**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (aluminum contg.; particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT 557-05-1, Zinc stearate 61417-49-0, Isopropyltriisostearoyltitanate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (conductive particle treated with; particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT 7631-86-9, **Silica**, uses 13463-67-7, **Titania**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT 999-97-3, Hexamethyldisilazane 9016-00-6, **Dimethylsilicone** 31900-57-9, Dimethylsilane diol homopolymer  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (silica treated with; particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

IT 7429-90-5, Aluminum, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (zinc **oxide** contg.; particle size-controlled electrophotog. developer contg. **toner**, inorg. particle, and conductive particle)

L18 ANSWER 32 OF 58 CA COPYRIGHT 2008 ACS on STN  
 TI Electrophotographic color **toners** to be fixed without using oil and electrophotographic **toner** image-forming apparatus  
 AB The title **toner** contains colored resin particles and an external additives, wherein the external additive is made of inorg. powder treated with aliph. acid and/or a metal salt of an aliph. acid. The **toner** provides images of high d. and low fogging on image background and is suitable for tandem-mode color image development without. . .  
 ST electrophotog color **toner** app additive  
 IT Polysiloxanes, processes  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
 (amino-modifies; external additive in electrophotog. **toners**)

IT Electrophotographic apparatus  
 Electrophotographic **toners**  
 (electrophotog. **toners** and electrophotog. **toner** image-forming app.)

IT 124-07-2D, Octylic acid, salt with zinc 542-42-7, Calcium palmitate 557-05-1, Zinc stearate 637-12-7, Aluminum stearate 822-16-2, Sodium stearate 999-97-3, Hexamethyldisilazane 2487-90-3, Trimethoxysilane 7440-66-6D, Zinc, salt with aliph. acid 9016-00-6, **Dimethylsilicone** 13598-78-2, Aminosilane  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
 (external additive in electrophotog. **toners**)

IT 12047-27-7, Barium titanium **oxide**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (external additive in electrophotog. **toners**)

IT 7631-86-9, **Silica**, uses 13463-67-7, Titanium **oxide**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (external additive; external additive in electrophotog. **toners**)

L18 ANSWER 33 OF 58 CA COPYRIGHT 2008 ACS on STN  
 TI One-component dry electrophotographic full-color **toner** containing polyol binder resins and three types of additives  
 AB The title **toner** comprises binder resins, colorants, and charge



controllers. The binder resins are polyols contg. a bisphenol A-type epoxy resin section and an alkylene **oxide** section and/or glycidyl ethers thereof. The additives are: (1) a hydrophobicized **silica** 0.2-1.0 wt. parts having a primary grain diam. 0.01-0.03  $\mu\text{m}$  on the basis of 100 wt. parts of the mother **toner**; (2) a hydrophobicized **titania** 0.2-0.8 wt. parts having a primary grain diam. 0.01-0.03  $\mu\text{m}$  and a sp. surface area 60-140  $\text{m}^2/\text{g}$  on the basis of 100 wt. parts of the mother **toner**; and (3) a hydrophobicized **silica** 0.1-5.0 wt. parts having a sp. surface area 301-50  $\text{m}^2/\text{g}$ , an oil absorption 130-300  $\text{mL}/100\text{g}$ , and a MeOH wet value 30-70% on the basis of 100 wt. parts of the mother **toner**. The charge controller includes at least a salicylic acid deriv. metal salt. The **toner** further contains lubricants, at least one of which is a  $\text{C}\geq 16$  aliph. acid metal salt such as Mg stearate. A method of developing an image using a development roller having a rubber surface layer is also claimed. The **toner** exhibited excellent development properties and little **toner** image transfer when an image is laminated on a PVC sheet.

- ST one component dry electrophotog full color **toner**; polyol bisphenol A alkylene **oxide** glycidyl ether binder resin; hydrophobicized **silica titania** external additive full color **toner**; salicylic acid deriv metal salt charge controller **toner**; aliph acid metal salt lubricant **toner**
- IT Lubricants  
(aliph. acid metal salt lubricant in 1-component dry electrophotog. full-color **toner**)
- IT Carboxylic acids, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(aliph., metal salt; lubricant in 1-component dry electrophotog. full-color **toner**)
- IT Electrophotographic **toners**  
(one-component dry electrophotog. full-color **toner** contg. polyol binder resins and 3 types of additives)
- IT Electrophotographic development  
(one-component; one-component dry electrophotog. full-color **toner** contg. polyol binder resins and 3 types of additives)
- IT Alcohols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyhydric; one-component dry electrophotog. full-color **toner** contg. polyol binder resins and 3 types of additives)
- IT Epoxy resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyol; one-component dry electrophotog. full-color **toner** contg. polyol binder resins and 3 types of additives)
- IT 42405-40-3, Bontron E84  
RL: TEM (Technical or engineered material use); USES (Uses)  
(charge controller in 1-component dry electrophotog. full-color **toner**)
- IT 69-72-7D, deriv., metal salt  
RL: TEM (Technical or engineered material use); USES (Uses)  
(charge controller; charge controller in 1-component dry electrophotog. full-color **toner**)
- IT 7631-86-9, **Silica**, uses 13463-67-7, **Titania**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(hydrophobicized external additive in 1-component dry electrophotog. full-color **toner**)
- IT 75-78-5, Dimethyldichlorosilane 999-97-3, Hexamethyldisilazane 1185-55-3, Methyltrimethoxysilane 9016-00-6, **Polydimethylsiloxane** 18402-22-7, Tetradecyltrichlorosilane 282541-52-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(hydrophobicizing agent; hydrophobicized external additive in 1-component dry electrophotog. full-color **toner**)
- IT 557-04-0, Magnesium stearate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(lubricant; lubricant in 1-component dry electrophotog. full-color **toner**)
- IT 80-05-7DP, Bisphenol A, polyol 599-64-4DP, p-Cumylphenol, polyol 620-92-8DP, Bisphenol F, polyol 54140-64-6DP, Ethoxylated bisphenol A diglycidyl ether, polyol 55236-42-5DP, Propoxylated bisphenol A diglycidyl ether, polyol  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(one-component dry electrophotog. full-color **toner** contg.

polyol binder resins and 3 types of additives)

- L18 ANSWER 34 OF 58 CA COPYRIGHT 2008 ACS on STN
- TI Electrophotographic single component **toner** showing excellent performance even under tropical condition
- AB The invention relates to an electrophotog. single component **toner** contg. porous Ca phosphate as an external additive. The external additive is surface treated with fatty acid metal salt, **silicone** oil, or silane coupling agent to have hydrophobic surfaces. **Silica** may be also included as an external additive.
- ST electrophotog single component **toner** porous calcium phosphate external additive
- IT Electrophotographic **toners**  
(electrophotog. single component **toner** contg. surface-treated porous Ca phosphate additive for showing excellent performance even under tropical condition)
- IT Polysiloxanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(surface treatment agent; electrophotog. single component **toner** contg. surface-treated porous Ca phosphate additive for showing excellent performance even under tropical condition)
- IT 146701-60-2, Cab-O-Sil TS 530  
RL: MOA (Modifier or additive use); USES (Uses)  
(electrophotog. single component **toner** contg. surface-treated porous Ca phosphate additive for showing excellent performance even under tropical condition)
- IT 10103-46-5, Calcium phosphate  
RL: MOA (Modifier or additive use); USES (Uses)  
(hydrophobic; electrophotog. single component **toner** contg. surface-treated porous Ca phosphate additive for showing excellent performance even under tropical condition)
- IT 1306-06-5, Hydroxy apatite  
RL: MOA (Modifier or additive use); USES (Uses)  
(surface treated with **silicone** oil; electrophotog. single component **toner** contg. surface-treated porous Ca phosphate additive for showing excellent performance even under tropical condition)
- IT **822-16-2**, Sodium stearate 1066-35-9, Dimethylchlorosilane  
RL: MOA (Modifier or additive use); USES (Uses)  
(surface treatment agent; electrophotog. single component **toner** contg. surface-treated porous Ca phosphate additive for showing excellent performance even under tropical condition)
- L18 ANSWER 35 OF 58 CA COPYRIGHT 2008 ACS on STN
- TI Method of forming full-color image using intermediate transfer medium and **toner** containing hydrophobicized fluidizing agent, image-forming apparatus, and **toner** for electrostatographic development
- AB Of a cyan **toner** and a magenta **toner** used in the process, the **toner** (a) used in the development first contains more fluidizing agent and has higher charge than the **toner** (b) used in the later development. The charge may be set at  $15 < |Q_a/m| < 40 \mu\text{C/g}$ . The method of forming a full-color. . .  $\geq 3 \text{ g/cm}$ . The process uses an intermediate transfer medium which is coated with Zn stearate. The fluidizing agent may be **silica** hydrophobicized by a **silicone** oil or a **silicone** varnish. The use of above **toner** prevented the formation of white spots in the transfer process.
- ST electrophotog full color **toner** intermediate transfer medium; hydrophobicized **silica** fluidizing agent electrophotog **toner** development app; cyan magenta electrophotog full color **toner**
- IT Electrophotographic apparatus  
Electrophotographic development  
Electrophotographic **toners**  
(electrophotog. full-color **toner** contg. hydrophobicized fluidizing agent)
- IT Polysiloxanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(electrophotog. **toner** contg. hydrophobicized fluidizing agent)
- IT 7631-86-9, H2000, uses 60842-32-2, R972 145539-08-8, TS-720 298202-26-3, RY 50  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluidizing agent; electrophotog. full-color **toner** contg.

hydrophobicized fluidizing agent)

IT 557-05-1, Zinc stearate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (intermediate transfer medium of electrophotog. full-color  
 image-forming app.)

L18 ANSWER 36 OF 58 CA COPYRIGHT 2008 ACS on STN

TI Method of forming full-color image using **toner** containing three types of  
 external additives

AB The process uses a color **toner** (yellow, cyan, magenta, and black) which  
 contains 3 types of external additives: (1) hydrophobicized **silica**  
 having a primary grain diam. 0.01-0.03  $\mu\text{m}$ ; (2) hydrophobicized  
**titania** having a primary grain diam. 0.01-0.03  $\mu\text{m}$  and a sp. surface  
 area 60-140 m<sup>2</sup>/g; and (3) hydrophobicized **silica** having a sp. surface  
 area 30-150 m<sup>2</sup>/g and a bulk d. 100-250 g/L. Of a cyan **toner** and a  
 magenta **toner**, the **toner** used in the development first contains more  
 external additives and has higher charge than the **toner** used in the  
 later development. The method of forming a full-color image includes a  
 nonmagnetic 1-component development. A secondary transfer. . . contact  
 load of  $\geq 3$  g/cm. The process uses an intermediate transfer medium  
 which is coated with Zn stearate. The color **toner** contains a polyester  
 and/or polyol binder resin. The use of above **toner** prevented the  
 formation of white spots in the transfer process.

ST electrophotog full color **toner** nonmagnetic one component developer;  
 development electrophotog intermediate transfer medium zinc stearate;  
 polyester polyol binder resin **toner**

IT Epoxy resins, preparation  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (bisphenol-A, polyol; full-color electrophotog. **toner** contg.  
 binder resin)

IT Electrophotographic **toners**  
 (full-color electrophotog. **toner** contg. 3 types of external  
 additives)

IT Polyesters, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (full-color electrophotog. **toner** contg. binder resin)

IT Electrophotographic development  
 (nonmagnetic 1-component; full-color electrophotog. **toner**  
 contg. 3 types of external additives)

IT Alcohols, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyhydric; full-color electrophotog. **toner** contg. binder  
 resin)

IT 75-78-5, Dimethyldichlorosilane 999-97-3, Hexamethyldisilazane  
 1185-55-3, Methyltrimethoxysilane 7631-86-9, **Silica**, uses  
 13463-67-7, **Titania**, uses 18402-22-7,  
 Tetradecyltrichlorosilane 31900-57-9, **Polydimethylsiloxane**  
 282541-52-0, Isobutylmethoxysilane  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog full-color **toner** contg. hydrophobicized  
 external additive)

IT 557-05-1, Zinc stearate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog. intermediate transfer medium coated with Zn stearate)

IT 599-64-4DP, p-Cumylphenol, polyol 620-92-8DP, Bisphenol F, polyol  
 54140-64-6DP, polyol 55236-42-5DP, polyol 115172-23-1P, Propoxylated  
 bisphenol a-ethoxylated bisphenol a-dimethyl terephthalate-isododecenyl  
 succinic acid anhydride-tributyl 1,2,4-benzenetricarboxylate copolymer  
 221277-06-1DP, polyol  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (full-color electrophotog. **toner** contg. binder resin)

L18 ANSWER 37 OF 58 CA COPYRIGHT 2008 ACS on STN

TI Method of forming full-color image using intermediate transfer process,  
 apparatus therefor, and electrostatographic development **toner**

AB An electrostatic latent image on an image support is developed by each  
 color **toner** (yellow, cyan, magenta, and black), a **toner** image is  
 transferred onto an intermediate transfer medium to form a primary  
 transfer image, and the primary transfer image is transferred onto a  
 receptor to form a secondary transfer image. An aggregation degree of

each **toner** is set at 5-30%, in which the **toner** used in the development in an earlier stage must have a smaller aggregation degree. The aggregation degree is defined by the sum of a, b, and c, wherein "a" is a percentage of a **toner** remained on a 75- $\mu$ m screen, "b" is 60% of a percentage of a **toner** remained on a 45- $\mu$ m screen, and "c" is 20% of a percentage of a **toner** remained on a 22- $\mu$ m screen. The intermediate transfer medium is coated with a minute amt. of Zn stearate. A fluidizing agent contained in each **toner** is **silica** hydrophobicized by a **silicone** oil or a **silicone** varnish. The use of above **toners** prevented the formation of white spots in the image-transfer process.

ST full color image formation electrophotog **toner** transfer; aggregation degree full color **toner**

IT Electrophotographic apparatus  
(aggregation degree of each color **toner**)

IT Polysiloxanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(electrophotog. full-color **toner** hydrophobicized by)

IT Electrophotographic development  
Electrophotographic **toners**  
(full-color; aggregation degree of each color **toner**)

IT 557-05-1, Zinc stearate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(electrophotog. intermediate transfer medium coated with)

IT 145539-08-8, TS-720 298202-26-3, RY 50  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluidizing agent; electrophotog. full-color **toner** contg.)

L18 ANSWER 38 OF 58 CA COPYRIGHT 2008 ACS on STN

TI Method of forming image using **toner** for prolonged use of **toner**-cleaning blade

AB The process uses an elastic cleaning blade contacting a latent image support at a crossed axes angle <90°. The **toner** contains grains 1.0-7.0 $\mu$ m having  $\leq 3.17 \mu$ m in a no.-based std., an abrasive external additive such as **silica**, **titania**, and Sr titanate, with a no. av. grain diam. 0.5-5.0  $\mu$ m, and an aliph. acid metal salt. The **toner** is obtained by polyimg. monomers in an aq. medium.

ST electrophotog **toner** abrasive external additive aliph acid metal salt

IT Electrophotographic **toners**  
(abrasive external additive in electrophotog. **toner**)

IT 25036-16-2P, Butyl acrylate-methacrylic acid-styrene copolymer  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(abrasive external additive in electrophotog. **toner**)

IT 1592-23-0, Calcium stearate 12060-59-2, Strontium titanate 13463-67-7, **Titania**, uses 192526-52-6, Tipaque ET 300W  
RL: TEM (Technical or engineered material use); USES (Uses)  
(abrasive external additive in electrophotog. **toner**)

IT 7631-86-9, **Silica**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(hydrophobicized; abrasive external additive in electrophotog. **toner**)

IT 75-78-5, Dimethyldichlorosilane 999-97-3, Hexamethyldisilazane 1067-57-8, n-Butyltrimethoxysilane 3069-19-0, Hexyltrimethoxysilane 3069-40-7, Octyltrimethoxysilane 9016-00-6, **Dimethylsilicone** 18395-30-7, Isobutyltrimethoxysilane  
RL: TEM (Technical or engineered material use); USES (Uses)  
(hydrophobicizing agent; abrasive external additive in electrophotog. **toner**)

L18 ANSWER 39 OF 58 CA COPYRIGHT 2008 ACS on STN

AB Disclosed is an electrostatic developer comprising a mixt. of (1) **toner** components contg. image-forming particles, (2) pos. charged treated **silica** particles, (3) neg. charged treated **silica** particles, and (4) metal fatty acid salt as a lubricant. The object of the present invention is to provide a **toner** which is capable of stable long-term performance without any undesired **toner** contamination of the electrophotog. system including the photoconductor and direct photoconductor charging app.

IT Polysiloxanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(developer for electrostatic latent image comprising **silica** treated with)

IT 75-78-5, Dichlorodimethylsilane 556-67-2, Octamethyl

**cyclotetrasiloxane** 999-97-3, Hexamethyldisilazane 9016-00-6,  
**Polydimethylsiloxane** 31900-57-9, **Polydimethylsiloxane**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (developer for electrostatic latent image comprising **silica**  
 treated with)  
 IT 7631-86-9, **Silica**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (developer for electrostatic latent image comprising **silica**  
 treated with **siloxane** and silane derivs.)  
 IT 557-05-1, Zinc stearate 4991-47-3, Zinc palmitate 16260-27-8,  
 Zinc myristate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (lubricant; developer for electrostatic latent image reducing  
 contamination of photoconductive drum)

L18 ANSWER 40 OF 58 CA COPYRIGHT 2008 ACS on STN  
 TI Electrophotographic **toners** and electrophotographic apparatus  
 AB The **toners** comprise neg. charged **toner** mother particles contg. binder  
 polymer and colorant, fatty acid metal salt additives, and optionally  
 pos.-charged inorg. fine-grain particles. The **toners** may also contain  
 neg.-charged inorg. fine-grain particles. The claimed **toners** may be  
 mech.- and/or heat-treated **toner** mother particles covered with the  
 additives. Electrophotog. app. equipped with a means for recycling of the  
 waste **toner** is also claimed. Clear images are obtained even after  
 repeated use.  
 ST electrophotog **toner** fatty acid surface treatment; waste **toner**  
 recycling electrophotog app  
 IT Polysiloxanes, uses  
 Silanes  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES  
 (Uses)  
 (amino, **silica** surface-treated with; electrophotog. app.  
 equipped with means for recycling of **toner** particles  
 resistant to repeated use)  
 IT Electrophotographic apparatus  
 Electrophotographic **toners**  
 (electrophotog. app. equipped with means for recycling of **toner**  
 particles resistant to repeated use)  
 IT Recycling  
 (of **toners**; electrophotog. app. equipped with means for  
 recycling of **toner** particles resistant to repeated use)  
 IT Polysiloxanes, uses  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES  
 (Uses)  
 (**silica** surface-treated with; electrophotog. app. equipped  
 with means for recycling of **toner** particles resistant to  
 repeated use)  
 IT Amines, uses  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES  
 (Uses)  
 (silyl, **silica** surface-treated with; electrophotog. app.  
 equipped with means for recycling of **toner** particles  
 resistant to repeated use)  
 IT 89107-32-4, S 34 90597-68-5, E 81 114803-11-1, LR 147  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES  
 (Uses)  
 (charge controller; electrophotog. app. equipped with means for  
 recycling of **toner** particles resistant to repeated use)  
 IT 557-05-1, Zinc stearate 822-16-2, Sodium stearate  
 1592-23-0, Calcium stearate  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES  
 (Uses)  
 (electrophotog. app. equipped with means for recycling of **toner**  
 particles resistant to repeated use)  
 IT 999-97-3, Hexamethyldisilazane 9016-00-6, **Dimethylsilicone**  
 31900-57-9  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES  
 (Uses)  
 (**silica** surface-treated with; electrophotog. app. equipped  
 with means for recycling of **toner** particles resistant to  
 repeated use)  
 IT 1344-28-1, **Alumina**, uses 7631-86-9, **Silica**, uses

13463-67-7, **Titania**, uses  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES  
 (Uses)  
 (surface-treated; electrophotog. app. equipped with means for recycling  
 of **toner** particles resistant to repeated use)

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L18 ANSWER 31 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 138:178223 CA  
 TI Electrophotographic developer, image forming method, and process cartridge  
 IN Yoshida, Satoshi; Mizoe, Marekatsu  
 PA Canon Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 67 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003057868	A	20030228	JP 2001-249382	20010820
PRAI	JP 2001-249382		20010820		

L18 ANSWER 32 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 138:178189 CA  
 TI Electrophotographic color **toners** to be fixed without using oil and  
 electrophotographic **toner** image-forming apparatus  
 IN Yuasa, Yasuto; Yukitake, Kazunori  
 PA Matsushita Electric Industrial Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 34 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003043733	A	20030214	JP 2001-234540	20010802
PRAI	JP 2001-234540		20010802		

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L18 ANSWER 41 OF 58 CA COPYRIGHT 2008 ACS on STN

AB The invention relates to an electrophotog. photoreceptor and an  
 electrophotog. **toner**. The photoreceptor has a resin layer on an  
 electroconductive support, wherein the resin layer contains a crosslinked  
**polysiloxane** having a repeating unit which transport charges. The  
**toner** consists of colored particles and 0.1-3.0 % additives, wherein the  
 additives are fine particles of 201-2,000 nm av. primary particle sizes.  
 The method, which uses the **toner** contg. the fine particles, provides the  
 durable photoreceptor and generates little faulty image over time.

IT Electrophotographic photoconductors (photoreceptors)  
 Electrophotographic **toners**  
 (method and app. for electrophotog. image formation and developer  
 therefor)

IT Polysiloxanes, preparation  
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (surface treatment agent for additive in electrophotog. **toners**  
 )

IT 7631-86-9, **Silica**, uses 11129-18-3, Cerium **oxide**  
 12795-57-2, Strontium titanium **oxide** 13463-67-7,  
**Titania**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (additive of electrophotog. **toners**)

IT 62-53-3, Aniline, reactions 68-12-2, Dimethylformamide, reactions  
 75-21-8, Ethylene **oxide**, reactions 589-87-7,  
 4-Iodobromobenzene 603-34-9, Triphenylamine 78462-91-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(charge transporting material in resin layer of electrophotog. photoreceptor)

IT 75-78-5, Dimethyldichlorosilane **557-05-1**, Zinc stearate 999-97-3, Hexamethyldisilazane 3069-19-0, Hexyltrimethoxysilane 3069-40-7, Octyltrimethoxysilane 9016-00-6, Dimethyl **silicone** 25498-03-7, Trimethoxymethylsilane homopolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (surface treatment agent for additive in electrophotog. **toners**)

L18 ANSWER 42 OF 58 CA COPYRIGHT 2008 ACS on STN  
 AB . . . mil) was coated with a release layer (dry coating wt. 11 g) comprising Hycar 26172 100, Celite 263 50, and **Silicone** Surfactant 190 8 dry parts; a tie coating comprising Michleman 58035 100, MPP 6356 100, and Triton X 100 3. . . 25, Orgasol 3501EXD-NAT1 100, Tergitol 15S40 5, Triton X 100 2, Polyox N 60K 4, sodium carbonate 1, and zinc **oxide** soln. 5 dry parts, then images were copied onto the heat-transfer material using a laser color copier, and transferred onto 100% cotton tee-shirt material by hand ironing for 3 min, showing good acceptance of **toners** and good cold-peel transfer, soft hand, and little color loss after 5 washings.

IT **557-05-1**, Zinc stearate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (Disperso D; heat-transfer material having a fusible coating contg. cyclohexanedimethanol dibenzoate and manuf. of articles therefrom)

IT **1592-23-0**, Calcium stearate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (Nopcote C 104-50; heat-transfer material having a fusible coating contg. cyclohexanedimethanol dibenzoate and manuf. of articles therefrom)

L18 ANSWER 43 OF 58 CA COPYRIGHT 2008 ACS on STN  
 IT **Toner** and developer compositions  
 AB A **toner** comprised of resin, colorant and a surface additive mixt. comprised of 2 coated silicas, and a coated metal **oxide**.  
 ST **toner** developer resin carbon black  
 IT Electrographic developers  
 Electrographic **toners**  
 (**toner** and developer compns. contg. resin and pigment and coated **silica** and metal **oxide**)

IT Carbon black, uses  
 Polysiloxanes, uses  
 Polyurethanes, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (**toner** and developer compns. contg. resin and pigment and coated **silica** and metal **oxide**)

IT 147-14-8, Copper phthalocyanine **557-05-1**, Zinc stearate 9016-00-6, Poly(**dimethylsiloxane**) 13463-67-7, Titanium **oxide**, uses 31900-57-9, Poly(**dimethylsiloxane**) 39382-25-7, Propoxylated Bisphenol A-fumaric acid copolymer 80154-37-6, Decylsilane 252769-80-5, Diisopropylamino)ethyl methacrylate-methyl methacrylate copolymer 252897-23-7, ENVIROCRON PCU10101  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (**toner** and developer compns. contg. resin and pigment and coated **silica** and metal **oxide**)

L18 ANSWER 44 OF 58 CA COPYRIGHT 2008 ACS on STN  
 AB The title sheet, comprising a film substrate laminated with an receptive layer for forming **toner** images and then with an antistatic layer on ≥1 side, contains a component having releasing effect in the antistatic layer, between the 2 layers, or in the uppermost layer. The adhesion of **silicone** oil to the sheet is prevented and when the sheet is used in oil-less fixing system, high quality images with. . .

IT **557-05-1**, SZ 2000 2958-09-0, LBT 100 7631-86-9, **Silica**, uses 11114-17-3, FC 430  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog. paper contg. releasing agent)

L18 ANSWER 45 OF 58 CA COPYRIGHT 2008 ACS on STN  
 AB . . . title developer, used in an imaging process involving the steps

of developing electrostatic images on an image-holding substance, transferring the **toner** images onto receptors, cleaning the substance to remove the remaining **toner**, and supplying the recovered **toner** to developing device, consists of magnetic carrier and a magnetic **toner** prepd. by adding a surface-treating agent comprising  $\geq 1$  stearic acid metal salt fine powder and  $\geq 1$  inorg. **oxide** fine powder to the inside and/or the surface of **toner** particles contg. a binder resin with no. av. mol. wt. (Mn) 2000-100,000, wt. av. mol. wt. (Mw) 5000-500,000, and. . . developer provides high d. and low fog images in continuously repeated copying and shows good low temp. fixation, and prevents **toner** filming phenomena. Thus, styrene-Bu methacrylate copolymer, polypropylene, EPT 500 (magnetite), and a charge-controlling agent were kneaded, pulverized, and mixed with Zn stearate and R 972 (hydrophobic **silica**) and then with a **silicone** resin-coated Fe powder carrier to give a developer.

- ST electrophotog magnetic **toner** binder; metal stearate electrophotog magnetic **toner**; inorg **oxide** powder electrophotog **toner**
- IT Binders
  - (electrophotog. magnetic **toner** contg. viscosity and softening point-controlled binder)
- IT Electrophotographic developers
  - (magnetic; electrophotog. magnetic developer contg. **toner** surface treated with stearic acid salt and inorg. **oxide** powders)
- IT 557-05-1 13463-67-7, Titanium **oxide**, uses 60842-32-2, Aerosil R 972
  - RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
  - (electrophotog. magnetic developer contg. **toner** surface treated with stearic acid salt and inorg. **oxide** powders)
- IT 1309-38-2, Toda Color EPT 500, uses
  - RL: TEM (Technical or engineered material use); USES (Uses)
  - (electrophotog. magnetic developer contg. **toner** surface treated with stearic acid salt and inorg. **oxide** powders)
- IT 25213-39-2, Butyl methacrylate-styrene copolymer
  - RL: TEM (Technical or engineered material use); USES (Uses)
  - (electrophotog. magnetic **toner** contg. viscosity and softening point-controlled binder)
- IT 9003-07-0, Polypropylene
  - RL: TEM (Technical or engineered material use); USES (Uses)
  - (releasing agent; electrophotog. magnetic developer contg. **toner** surface treated with stearic acid salt and inorg. **oxide** powders)
- L18 ANSWER 46 OF 58 CA COPYRIGHT 2008 ACS on STN
- TI Electrostatographic developer with improved **toner** transferability
- AB The developer comprises a **toner** with av. particle size 5-15  $\mu\text{m}$ , a metal soap for increase of charge amt. of **toner** to prevent defects of images, and Ti **oxide** for prevention of fogging arising from addn. of the soap. The Ti **oxide** may have hydrophobicity  $\geq 5\%$  and be surface-treated with a **silicone** oil, Zn stearate, or a silane coupling agent. The developer showed good **toner** transferability and provided high-d. and low-fog images.
- ST electrostatog **toner** titanium **oxide** antifogging agent; metal soap charging agent electrostatog **toner**
- IT Silanes
  - RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
  - (coupling agents; electrostatog. developer contg. titanium **oxide** antifogging agent with improved **toner** transferability)
- IT Electrographic **toners**
  - (electrostatog. developer contg. titanium **oxide** antifogging agent with improved **toner** transferability)
- IT Coupling agents
  - (silanes; electrostatog. developer contg. titanium **oxide** antifogging agent with improved **toner** transferability)
- IT Polysiloxanes, uses
  - RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
  - (surface-treating agent; electrostatog. developer contg. titanium **oxide** antifogging agent with improved **toner**



transferability)

IT 557-05-1, Zinc stearate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (SZ-DFF; electrostatog. developer contg. titanium **oxide** antifogging agent with improved **toner** transferability)

IT 185036-51-5, STT 60  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (electrostatog. developer contg. titanium **oxide** antifogging agent with improved **toner** transferability)

L18 ANSWER 47 OF 58 CA COPYRIGHT 2008 ACS on STN

AB In the developer which contains (A) **toner** particles with vol.-based grain size 5-15  $\mu\text{m}$ , comprising 100 parts an anionic polar group-having fixing resin and 0.1-5 parts dispersed. . . spacer particles with vol.-based av. grain size 0.05-1.0  $\mu\text{m}$  and a stearic acid metal salt are successively adhered on the **toner** particles and the carrier core particles are coated with (a) a resin compn. contg. a Me **silicone** and a methylolated melamine resin with wt.-av. mol. wt.  $\geq 700$  or (b) a resin compn. contg. a Me **silicone** with T unit  $\geq 70\%$ . The developer shows good antioffset property and fixability.

ST electrophotog developer **toner** fixing anionic polymer; carrier electrophotog magnetic methyl **silicone** coating; methylolated melamine coating carrier electrophotog; spacer adhesion **toner** particle electrophotog; metal stearate adhesion **toner** particle electrophotog

IT 1304-28-5, Barium **oxide**, processes 1309-48-4, Magnesia, processes 1313-99-1, Nickel **oxide** (NiO), processes 1314-13-2, Zinc **oxide**, processes 1332-37-2, Iron **oxide**, processes 1344-28-1, **Alumina**, processes 1344-70-3, Copper **oxide** 11104-61-3, Cobalt **oxide** 11129-60-5, Manganese **oxide**  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (carrier component; electrophotog. two-component developer contg. no charge controller)

IT 557-04-0, Magnesium stearate 557-05-1, Zinc stearate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog. two-component developer contg. no charge controller)

L18 ANSWER 48 OF 58 CA COPYRIGHT 2008 ACS on STN

AB In the developer contains (A) **toner** particles comprising 100 parts an anionic group-contg. fixing resin, 0.1-5 parts dispersed magnetic powders, and 0.01-10 parts a stearic acid. . . = Cu, Zn, Fe, Ba, Ni, Mg, Mn, Al, and/or Co) coated with (a) a resin compn. contg. a Me **silicone** and a methylolated melamine resin with wt.-av. mol. wt.  $\geq 700$  or (b) a resin compn. contg. a Me **silicone** with T unit  $\geq 70\%$ . The developer shows good antioffset property and fixability.

ST electrophotog developer **toner** fixing anionic polymer; carrier electrophotog magnetic methyl **silicone** coating; methylolated melamine coating carrier electrophotog; metal stearate fixing resin **toner** electrophotog

IT 1304-28-5, Barium **oxide**, processes 1309-48-4, Magnesia, processes 1313-99-1, Nickel **oxide** (NiO), processes 1314-13-2, Zinc **oxide**, processes 1332-37-2, Iron **oxide**, processes 1344-70-3, Copper **oxide** 11104-61-3, Cobalt **oxide** 11129-60-5, Manganese **oxide**  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (carrier component; electrophotog. two-component developer contg. no charge controller)

IT 557-04-0, Magnesium stearate 557-05-1, Zinc stearate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (**toner** component; electrophotog. two-component developer contg. no charge controller)

L18 ANSWER 49 OF 58 CA COPYRIGHT 2008 ACS on STN

TI Developers for electrostatic latent images using **silicone** resin-coated carrier and **toner** containing fatty acid metal salt

AB The title developers consist of (1) a **toner** contg. fatty acid metal salts and (2) carrier particles coated with a **silicone** resin layer contg. fatty acid metal salts. The developers show good cleaning properties and prevent filming phenomena on a photoreceptor in repeated

use. Thus, ferrite particles were coated with a compn. contg. a **silicone** resin, carbon black, and Zn stearate (I) to give a carrier, while Bu methacrylate-styrene copolymer, carbon black, and a charge-controlling agent were kneaded, pulverized, and mixed with a hydrophobic **silica** and I to give a **toner**. A developer was obtained by mixing the carrier and the **toner**.

ST developer fatty acid metal salt; **silicone** coated carrier electrophotog developer

IT Electrography  
(developers, contg. **silicone**-coated carrier and **toner**  
contg. fatty acid metal salt)

IT 557-05-1, Zinc stearate 637-12-7, Aluminum stearate  
1592-23-0, Calcium stearate

RL: USES (Uses)

(electrophotog. developer **toner** and carrier coated with)

L18 ANSWER 50 OF 58 CA COPYRIGHT 2008 ACS on STN

AB . . . F-contg. resin coating and contg. 0.05-0.5 wt.% fatty acid metal salts on the surface of the coating, and (2) a **toner** comprising colored particles contg. styrene-acrylic copolymers obtained by reacting the CO<sub>2</sub>H groups of the copolymers with polyvalent metal compds. and inorg. particles treated with ammonium salt-modified polysiloxanes. The **toners** show excellent line-reproducibility and durability and provide uniform d. images. Thus, ferrite particles were coated with Me methacrylate-styrene copolymer and. . . black) were kneaded, pulverized, and mixed with Aerosil 200 (SiO<sub>2</sub> particle) treated with Me[SiMe<sub>2</sub>O]<sub>9</sub>x[SiMe[(CH<sub>2</sub>)<sub>3</sub>N+Me<sub>3</sub>.Cl-]O]<sub>x</sub>SiMe<sub>3</sub> (x = integer) to give a **toner**. A developer was prepd. by mixing the **toner** and the carrier.

ST two component developer electrophotog; fluoreresin coated carrier electrophotog developer; fatty acid metal salt developer; **siloxane** ammonium **toner** electrophotog developer

IT Siloxanes and Silicones, uses

RL: USES (Uses)

(ammonium salt-modified, **silica** with, electrophotog.  
developer **toner** using)

IT 130367-59-8

RL: USES (Uses)

(crosslinked with magnesium **oxide**, electrophotog. developer  
**toner** using)

IT 103885-38-7, Butyl acrylate-methyl methacrylate-monoacryloyloxyethyl succinate-styrene copolymer

RL: USES (Uses)

(crosslinked with zinc **oxide**, electrophotog. developer  
**toner** using)

IT 1309-48-4, Magnesium **oxide**, uses 1314-13-2, Zinc **oxide**, uses

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agent, for styrene-acrylic copolymer, electrophotog.  
developer **toner** using)

IT 2624-31-9 4485-12-5, Lithium stearate

RL: USES (Uses)

(electrophotog. developer carrier coated with, with fluoropolymers)

=> d bib 43

L18 ANSWER 43 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 133:112363 CA

TI **Toner** and developer compositions

IN Duggan, Michael J.; Henderson, K. Derek; Stamp, Amy L.; Silence, Scott M.; Hollenbaugh, William H., Jr.; Gutman, Edward J.; Grushkin, Bernard; Ruhland, John G.

PA Xerox Corp., USA

SO U.S., 13 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 6087059	A	20000711	US 1999-344860	19990628

JP 2001022119	A	20010126	JP 2000-182502	20000619
EP 1065570	A1	20010103	EP 2000-113580	20000627
EP 1065570	B1	20080827		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

PRAI US 1999-344860 A 19990628

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d kwic 51-58; fil tnguide

L18 ANSWER 51 OF 58 CA COPYRIGHT 2008 ACS on STN

AB . . . charging member with the charge receptor and applying an external voltage and developing electrostatic latent images, the developer contains a **toner**, pos.-charging polymer particles having an av. diam. of 0.03-1  $\mu\text{m}$  and an elec. resistivity of 106-109  $\Omega\text{-cm}$ , a fine aliph. acid metal salt powder, and a hydrophobic inorg. powder treated by a **silicone** oil.

IT Siloxanes and Silicones, uses  
RL: USES (Uses)  
(**silica** powders treated by, for electrostatog. developers)

IT 557-05-1, Zinc stearate 637-12-7, Aluminum stearate  
2452-01-9, Zinc laurate  
RL: USES (Uses)  
(powd., electrostatog. developers contg.)

IT 7631-86-9, **Silica**, uses  
RL: USES (Uses)  
(powd., hydrophobic, treated with **silicone** oil for electrostatog. developers)

L18 ANSWER 52 OF 58 CA COPYRIGHT 2008 ACS on STN

TI Two-component type electrophotographic developers comprising **silicone** resin-coated carrier and **toner** containing styrene-type polymer binder

AB Two-component type electrophotog. developers comprise a carrier having a **silicone** resin coating layer contg. a fatty acid metal salt and a **toner** contg. a styrene-type polymer as a binder resin and a material endowing a pos. polarity. The developers exhibit good charging properties. Thus, an Fe **oxide** powder was coated with a compn. contg. SR 2406 (**silicone** resin) and Zn stearate and heat-treated to give a carrier, while a mixt. of D-125 (polystyrene), Spirit Black SB (nigrosine dye), and Mitsubishi 44 (C black) was kneaded and pulverized to obtain a **toner**. An electrophotog. developer from the carrier and the **toner** had a charge of 25  $\mu\text{C/g}$ , gave high quality images, and showed stable charging properties and excellent durability.

ST two component electrophotog developer; styrene copolymer binder **toner** electrophotog; **silicone** resin coated carrier developer; fatty acid metal salt carrier; pos polarity material **toner** developer

IT Electrophotographic developers  
(two-component type, with fatty acid metal salt-contg. **silicone** resin-coated carrier and **toner** contg. styrene type polymer binder and pos. polarity material, with good charging properties)

IT 557-04-0, Magnesium stearate 557-05-1, Zinc stearate  
4991-47-3, Zinc palmitate 7617-31-4, Copper stearate  
15773-53-2, Lead caproate  
RL: USES (Uses)  
(coatings, on two-component type electrophotog. developer carriers, for good charging properties)

IT 9003-53-6, D 125  
RL: USES (Uses)  
(two-component type electrophotog. developer **toner** contg. binder from, for good charging properties)

IT 100092-45-3, Pliolite AC-L  
RL: USES (Uses)  
(two-component type electrophotog. developer **toner** contg. binder from, for good charging properties,)

IT 25213-39-2, Butyl methacrylate-styrene copolymer  
RL: USES (Uses)  
(two-component type electrophotog. developer **toner** contg. binder from, for good charging properties, SBM 700)

IT 11099-03-9, Spirit Black SB 121763-36-8, TP 302  
RL: USES (Uses)

(two-component type electrophotog. developer **toner** contg., as pos. polarity inducing material, for good charging properties)

L18 ANSWER 53 OF 58 CA COPYRIGHT 2008 ACS on STN

AB . . . service life and a rapid triboelec. charging rate. Thus, spherical ferrite powder was coated with a soln. of SR 2411 (**silicone** resin) and dried to form an almost 1- $\mu$ m-thick layer, and 1 kg of the powder was treated by mixing with. . . mg to obtain the carrier. The ratio of the electrostatic charge acquired by mixing 19 parts carrier with 1 part **toner** (from a 15:15:70 Bu acrylate-Me methacrylate-styrene copolymer, carbon, polypropylene wax, and hydrophobic **silica**) for 1 min to that acquired by 20-min mixing was 1.09, vs. 0.40 for a mixt. of the **toner** and the coated carrier not treated with Zn stearate.

ST electrophotog carrier **silicone** coated treatment; fatty acid salt electrophotog carrier

IT Electrophotographic developers  
(carriers, **silicone**-coated and treated with fatty acid metal salts, for rapid charging)

IT 557-05-1 637-12-7 822-16-2

RL: USES (Uses)

(**silicone**-coated electrophotog. carrier surface-treated with, for rapid charging)

L18 ANSWER 54 OF 58 CA COPYRIGHT 2008 ACS on STN

AB The developer comprises a carrier of a magnetic material coated by a **silicone** resin and having fatty acid metal salt on the surface and a **toner** contg. a fatty acid metal salt. The developer is manufd. by coating the magnetic material with the resin, mixing with the salt, and then mixing with the **toner**. Ferrite particles were coated with SR 2411 (a **silicone** resin) and mixed with Zinc Stearate S (Zn stearate) to give a carrier, which was mixed with a **toner** contg. Bu acrylate-Me methacrylate-styrene copolymer, Mogul L (C black), Viscol 660P (polypropylene), R-972 (**silica**), and Zn stearate to give a developer. The developer showed a high charging rate and low dispersion of the **toner**; hence, a clear image was produced.

ST electrophotog developer **toner** carrier; coating **silicone** carrier electrophotog developer; fatty acid salt electrophotog developer

IT Ferrite substances

RL: USES (Uses)

(**silicone**-coated, electrophotog. developer carrier from)

IT Electrophotographic developers  
(**toners**, contg. fatty acid metal salt, **silicone** -coated carrier for use with)

IT 637-12-7, Aluminum stearate 822-16-2, Sodium stearate

RL: USES (Uses)

(electrophotog. developer using)

IT 557-05-1, Zinc stearate

RL: USES (Uses)

(electrophotog. developer using, Zinc Stearate S)

L18 ANSWER 55 OF 58 CA COPYRIGHT 2008 ACS on STN

AB The title developer contains a coated carrier, a nonmagnetic **toner**, pos.-charging **silica** fine particles, and an aliph. acid metal salt. A **siloxane**-coated Cu-Zn ferrite carrier, a nonmagnetic **toner** comprising Bu acrylate-styrene copolymer, a C black, and Nigrosine SO, aminoalkyl **siloxane**-coated **silica** particles, and Zn stearate were used to provide the developer.

IT Electrophotographic developers  
(neg. latent image, contg. coated carrier, nonmagnetic **toner**, pos.-charging **silica**, and metal stearate)

IT Electrophotography  
(developers, neg. latent image, contg. coated carrier, nonmagnetic **toner**, pos.-charging **silica**, and metal stearate)

IT 557-05-1, Zinc stearate 7617-31-4, Copper stearate

RL: USES (Uses)

(neg. electrostatic latent image developers contg.)

L18 ANSWER 56 OF 58 CA COPYRIGHT 2008 ACS on STN

TI Color **toners** for electrophotography

AB Color **toners** for electrophotog. are described which contain an anthraquinone deriv. of the formula I (R = H or C $\geq$ 6 alkyl; R1. . . Ph) and a binder resin or I and  $\geq$ 1 compd. selected from II and

III and a binder resin. The **toners**, which produce no fog and edge effects and give a uniform d., which have excellent environmental stability, and which are. . . and Zn salicylate (charge-controlling agent), melt-kneaded, cooled, crushed, pulverized, and classified to give a particle size of 5-20  $\mu\text{m}$ . This **toner** was then combined with a **silicone**-coated ferrite carrier to give a 2-component developer that gave a clear blue image without fog. The image quality of the. . .

ST color **toner** electrophotog anthraquinone deriv

IT Epoxy resins, uses and miscellaneous  
Phenolic resins, uses and miscellaneous  
Polyesters, uses and miscellaneous  
RL: USES (Uses)  
(electrophotog. developers with color **toners** contg. anthraquinone deriv. and binder from)

IT Paraffin waxes and Hydrocarbon waxes, uses and miscellaneous  
RL: USES (Uses)  
(chloro, electrophotog. developers with color **toners** contg. anthraquinone deriv. and binder from)

IT Electrophotographic developers  
(color, **toners** for, contg. anthraquinone deriv. and binder)

IT Polyesters, uses and miscellaneous  
RL: USES (Uses)  
(unsatd., electrophotog. developers with color **toners** contg. anthraquinone deriv. and binder from)

IT 1327-33-9, Antimony **oxide** 1332-29-2, Tin **oxide**  
1335-25-7, Lead **oxide**  
RL: USES (Uses)  
(electrophotog. developers with color **toners** contg. anthraquinone deriv. and binder and)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9003-55-8, Butadiene-styrene copolymer 9010-92-8, Methacrylic acid-styrene copolymer 25085-34-1, Acrylic acid-styrene copolymer 25213-39-2, Butyl methacrylate-styrene copolymer  
RL: USES (Uses)  
(electrophotog. developers with color **toners** contg. anthraquinone deriv. and binder from)

IT 88-99-3, Phthalic acid, uses and miscellaneous **557-05-1**, Zinc stearate  
RL: USES (Uses)  
(electrophotog. developers with color **toners** contg. anthraquinone derivs. and binders and)

IT 4395-65-7 55599-26-3 65177-57-3 86302-54-7 108483-78-9  
111672-27-6 111672-28-7  
RL: USES (Uses)  
(electrophotog. developers with color **toners** contg. binder and)

IT 128-95-0D, derivs.  
RL: USES (Uses)  
(electrophotog. developers with color **toners** contg. binders and)

IT 1344-28-1, Aluminum **oxide**, uses and miscellaneous 7631-86-9, Silicon **dioxide**, uses and miscellaneous 13463-67-7, Titanium **dioxide**, uses and miscellaneous  
RL: USES (Uses)  
(flow-improving agent, electrophotog. developers with color **toners** contg. anthraquinone derivs. and binder and)

IT 84-74-2, Dibutyl phthalate 117-81-7, Dioctyl phthalate  
RL: MOA (Modifier or additive use); USES (Uses)  
(plasticizer, electrophotog. developers with color **toners** contg. anthraquinone deriv. and binder and)

L18 ANSWER 57 OF 58 CA COPYRIGHT 2008 ACS on STN

AB . . . selected from the group consisting of fatty alcs., fatty acid esters, methathenic soaps of fatty acids, and org. complexes of **silicone**, or by applying an adhesive coating on the image surface before transfer. Also, the adhesion of the transferred image to the receptor surface increases when **toner** used in the process includes thermoadhesive unpigmented particulate matter (m.p. < 300°F) such as wax or micronized polyethylene. Thus, xerog. print made with Xerox 813 **toner** was sprayed with H<sub>2</sub>O-dild. mixt. of Latex HA 8 9 parts and HA-12 (Rohm and Haas) 1 part and dried.. . .

ST electrophotog **toner** image dry transfer

IT **Silica** gel, uses and miscellaneous  
 RL: USES (Uses)  
 (colloidal, electrophotog. **toner** contg., for dry transfer of the toned images in relation to)

IT Beeswax  
 (electrophotog. **toner** contg., dry transfer of the toned images in relation to)

IT Carbon black, uses and miscellaneous  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog. **toner** contg., dry transfer of the toned images in relation to)

IT Coumarone-indene resins  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog. **toner** contg., for dry transfer)

IT Waxes and Waxy substances  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog. **toner** contg., for dry transfer of the toned images in relation to)

IT **557-05-1** 9002-88-4 9003-32-1  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog. **toner** contg., for dry transfer of the toned images)

L18 ANSWER 58 OF 58 CA COPYRIGHT 2008 ACS on STN

AB Electrophotog. images of high contrast were obtained on construction units by using photoconductive powd. **toners** forming colors on heating. The **toners** consisted of resinous nuclei coated with a mixt. of photoconductive and color-forming compds. Thus, a **toner** consisting of Me methacrylate-styrene copolymer beads (100 parts) coated with a mixt. (25 parts) of ZnO 80, TiO2 20, Ag behenate 20, poly(**methylphenylsiloxane**) 35, and cyclohexane 120 parts was deposited on a Zn-primed steel plate and neg. charged, the plate was exposed, the **toner** removed from the exposed regions by a stream of gas, the latent image was coated with an electrostatic powder consisting. . .

ST electrophotog imaging photoconductive **toner**; methacrylate styrene copolymer electrophotog; zinc **oxide** photoconductive **toner**; titanium **oxide** photoconductive **toner**; silver behenate photoconductive **toner**; **siloxane** photoconductive **toner**

IT Photography, electro-  
 (image formation in, by photoconductive **toners**)

IT Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)  
 (methylphenyl, coatings, contg. color formers and photoconductors for electrophotg. color-forming **toners**)

IT 53351-66-9  
 RL: USES (Uses)  
 (coatings, contg. color formers and photconductors for electrophotog. color-forming **toners**)

IT 100-97-0D, 1,3,5,7-Tetraazatricyclo[3.3.1.1<sup>3,7</sup>]decane, reaction product with gallic acid 149-91-7D, Benzoic acid, 3,4,5-trihydroxy-, reaction products with hexamethylenetetramine 25609-89-6  
 RL: USES (Uses)  
 (coatings, contg. color formers and photoconductors for electrophotog. color-forming **toners**)

IT 632-68-8 2489-05-6 **5136-76-5** 9003-53-6 13463-67-7, uses and miscellaneous **14448-69-2** 17372-87-1 18268-45-6 25034-86-0 25038-74-8 53351-65-8  
 RL: USES (Uses)  
 (electrophotg. color-forming photoconductive **toners** contg.)

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FULL ESTIMATED COST	0.36	271.37
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-43.50

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.36	271.37
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-43.50

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.42	271.43
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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FILE COVERS 1907 - 11 Sep 2008 VOL 149 ISS 12  
 FILE LAST UPDATED: 11 Sep 2008 (20080911/ED)

CA now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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L18 ANSWER 52 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 111:67914 CA

OREF 111:11303a,11306a

TI Two-component type electrophotographic developers comprising **silicone** resin-coated carrier and **toner** containing styrene-type polymer binder

IN Asahina, Yasuo; Nakayama, Nobuhiro; Aoki, Mitsuo; Fushimi, Hiroyuki; Makita, Kayo

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 01033559	A	19890203	JP 1987-188947	19870730
PRAI	JP 1987-188947		19870730		

L18 ANSWER 53 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 110:222607 CA

OREF 110:36782h,36783a

TI Electrostatographic carrier, and preparative method

IN Shirase, Akizo; Takagiwa, Hiroyuki; Okuyama, Takeki; Kabashima, Hirotaka

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 01009469	A	19890112	JP 1987-164860	19870701
	JP 2539627	B2	19961002		
PRAI	JP 1987-164860		19870701		

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ENTRY

SESSION

FULL ESTIMATED COST

2.78

274.21

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

0.00

-43.50

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=> fil stnguide

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.18

274.39

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

0.00

-43.50

FILE 'STNGUIDE' ENTERED AT 12:01:53 ON 16 SEP 2008

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=> fil ca; d bib 46		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.48	274.87
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-43.50

FILE 'CA' ENTERED AT 12:06:30 ON 16 SEP 2008  
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FILE COVERS 1907 - 11 Sep 2008 VOL 149 ISS 12  
FILE LAST UPDATED: 11 Sep 2008 (20080911/ED)

CA now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L18 ANSWER 46 OF 58 CA COPYRIGHT 2008 ACS on STN

Full Text

AN 126:52837 CA  
OREF 126:10283a,10286a  
TI Electrostatographic developer with improved **toner** transferability  
IN Igami, Atsushi; Sato, Kisho  
PA Brother Ind Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08272132	A	19961018	JP 1995-77742	19950403
PRAI	JP 1995-77742		19950403		

=> log h		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	1.62	276.49
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-43.50

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 12:07:06 ON 16 SEP 2008